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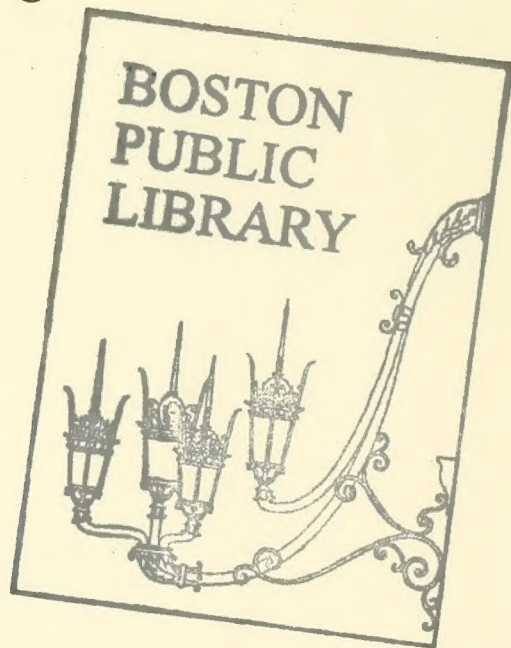




HARBOR POINT

(REDEVELOPMENT OF THE
COLUMBIA POINT HOUSING PROJECT)

FINAL ENVIRONMENTAL IMPACT REPORT EOEA #5076



BOSTON, MASSACHUSETTS

HARBOR POINT

DEVELOPMENT OF THE
COLUMBIA POINT HOUSING PROJECT

FINAL

ENVIRONMENTAL IMPACT REPORT

EOA #5078



BOSTON MASSACHUSETTS

The City of Boston
Boston Redevelopment Authority
FINAL ENVIRONMENTAL IMPACT REPORT
FOR
COLUMBIA POINT REDEVELOPMENT
IN
BOSTON, MASSACHUSETTS

An examination of the probable environmental, social and public impacts which may result from the redevelopment of Columbia Point. Redevelopment activities include the demolition of about half of the existing vacated buildings, rehabilitation of the remaining buildings and the construction of new townhouses and multi-family structures along with several recreation facilities and parking to service 1282 dwelling units which will house a total residential population of 3,000.

Prepared by

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Quincy, Massachusetts

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PART I

MASSACHUSETTS ENVIRONMENTAL NOTIFICATION FORM
AND
SCOPE OF EIR

Use This Page to Complete Narrative, if necessary.

This project is one which is categorically included and therefore automatically requires preparation of an Environmental Impact Report: YES X NO

D. Scoping (Complete Sections II and III first, before completing this section.)

1. Check those areas which would be important to examine in the event that an EIR is required for this project. This information is important so that significant areas of concern can be identified as early as possible, in order to expedite analysis and review.

	Construc- tion Impacts	Long Term Impacts	Construc- tion Impacts	Long Term Impacts
Open Space & Recreation	<u> X </u>	<u> </u>	<u> </u>	<u> </u>
Historical	<u> </u>	<u> </u>	<u> X </u>	<u> X </u>
Archaeological	<u> </u>	<u> </u>	<u> </u>	<u> X </u>
Fisheries & Wildlife	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Vegetation, Trees	<u> </u>	<u> </u>	<u> X </u>	<u> </u>
Other Biological Systems	<u> </u>	<u> </u>	<u> X </u>	<u> </u>
Inland Wetlands	<u> </u>	<u> </u>	<u> </u>	<u> X </u>
Coastal Wetlands or Beaches	<u> X </u>	<u> </u>	<u> X </u>	<u> X </u>
Flood Hazard Areas	<u> </u>	<u> </u>	<u> </u>	<u> X </u>
Chemicals, Hazardous Substances,	<u> </u>	<u> </u>	<u> </u>	<u> X </u>
High Risk Operations	<u> </u>	<u> </u>	<u> </u>	<u> X </u>
Geologically Unstable Areas	<u> X </u>	<u> </u>	<u> </u>	<u> </u>
Agricultural Land	<u> </u>	<u> </u>	<u> </u>	<u> X </u>
Other (Specify)	<u> </u>	<u> </u>	<u> </u>	<u> </u>

2. List the alternatives which you would consider to be feasible in the event an EIR is required.

No-Build (Existing housing to remain)

APPENDIX A
COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

ENVIRONMENTAL NOTIFICATION FORM

I. SUMMARY

A. Project Identification

1. Project Name COLUMBIA POINT REDEVELOPMENT

2. Project Proponent COLUMBIA POINT REDEVELOPMENT TEAM

Address c/o Corcoran, Mullins, Jennison

One Heritage Dr., Quincy, MA 02171

B. Project Description: (City/Town(s) BOSTON)

1. Location within city/town or street address MT. VERNON ST., COLUMBIA POINT (DORCHESTER)

2. Est. Commencement Date: JUNE, 1984 Est. Completion Date: April, 1988

Approx. Cost \$ 135,000,000 Current Status of Project Design: 10 % Complete

C. Narrative Summary of Project

Describe project and give a description of the general project boundaries and the present use of the project area. (If necessary, use back of this page to complete summary).

The proposed project calls for the construction and rehabilitation of 1,400 residential apartment units on the site of the existing Columbia Point Housing Project. The apartments will be of one- to six-bedroom configurations, totalling 2,804 bedrooms. Approximately half of the existing buildings will be demolished, with the remainder of the units being rehabilitated. Additional residential units will be contained in new townhouse and mid-rise (up to 12 stories) buildings.

Plans also call for the construction of other community-related amenities such as a community building, swimming pools, tennis courts, softball diamonds, tot lots and playgrounds. Two (2) parking garages, each of 200-vehicle capacity, will be built to supplement on-site parking.

Copies of this may be obtained from:

Name: MARTY JONES Firm/Agency: CORCORAN, MULLINS, JENNISON, INC.

Address: One Heritage Drive, Quincy, MA 02171 Phone No. (617) 328-3100

III. ASSESSMENT OF POTENTIAL ADVERSE ENVIRONMENTAL IMPACTS

Instructions: Consider direct and indirect adverse impacts, including those arising from general construction and operations. For every answer explain why significant adverse impact is considered likely or unlikely to result.

Also, state the *source* of information or other basis for the answers supplied. If the source of the information, in part or in full, is not listed in the ENF, the preparing officer will be assumed to be the source of the information. Such environmental information should be acquired at least in part by field inspection.

A. Open Space and Recreation

1. Might the project affect the condition, use or access to any open space and/or recreation area?

Yes _____ No X

Explanation and Source:

The existing recreational areas are not in good condition due to years of poor maintenance. The proposed plans incorporate new recreational areas and open space, including access to the adjoining M.D.C. beach.

Source: Developer

B. Historic Resources

1. Might any site or structure of historic significance be affected by the project? Yes _____ No X

Explanation and Source:

No known site or structure of historic significance is located either on or in the immediate vicinity of the project site.

Source: Mass. Historical Commission

2. Might any archaeological site be affected by the project? Yes _____ No X

Explanation and Source:

Almost all of the project area consists of man-made fill over a tidal marsh. Thus, any archaeological site would have been destroyed by previous activity. No significant archaeological remains have been uncovered at Columbia Point.

Source: Mass. Historical Commission and Project Engineer

C. Ecological Effects

1. Might the project significantly affect fisheries or wildlife, especially any rare or endangered species?

Yes _____ No X

Explanation and Source:

There are no known rare or endangered species in the project area.

E. Has this project been filed with EOE A before? Yes _____ No X

If Yes, EOE A No. _____ EOE A Action? _____

F. Does this project fall under the jurisdiction of NEPA? Yes X No _____

If Yes, which Federal Agency? H.U.D. NEPA Status? Preliminary Discussions

G. List the State or Federal agencies from which permits will be sought:

Agency Name	Type of Permit
Division of Water Pollution Control	Sewer Extension Permit
Federal Aviation Administration	FAA Part 77 Construction Permit

H. Will an Order of Conditions be required under the provisions of the Wetlands Protection Act (Chap. 131, Section 40)?

Yes X No _____

DEQE File No., if applicable: N/A

I. List the agencies from which the proponent will seek financial assistance for this project:

Agency Name	Funding Amount
U.S. DEPT. OF HOUSING & URBAN DEVELOPMENT	
- Section 8	\$3 Million
- UDAG	\$20 Million
- Urban Initiative	\$10 Million
- Section 17	\$13 Million
MASS. HOUSING FINANCE AGENCY	\$77 Million

II. PROJECT DESCRIPTION

A. Include an original 8½ x 11 inch or larger section of the most recent U.S.G.S. 1:24,000 scale topographic map with the project area location and boundaries clearly shown. Include multiple maps if necessary for large projects. Include other maps, diagrams or aerial photos if the project cannot be clearly shown at U.S.G.S. scale. If available, attach a plan sketch of the proposed project.

B. State total area of project: 50 Acres

Estimate the number of acres (to the nearest 1/10 acre) directly affected that are currently:

1. Developed	<u>37</u> acres	4. Floodplain	<u>0</u> acres
2. Open Space/Woodlands/Recreation	<u>13</u> acres	5. Coastal Area	<u>0</u> acres
3. Wetlands	<u>0</u> acres	6. Productive Resources	
		Agriculture	<u>0</u> acres
		Forestry	<u>0</u> acres
		Mineral Products	<u>0</u> acres

C. Provide the following dimensions, if applicable:

Length in miles <u>N/A</u>	Number of Housing Units <u>1,400</u>	Number of Stories <u>2 to 12</u>
	Existing	Immediate Increase Due to Project
Number of Parking Spaces	<u>1200</u>	<u>200</u>
Vehicle Trips to Project Site (average daily traffic)	<u>1600</u>	<u>4000</u>
Estimated Vehicle Trips past project site	<u>2400</u>	<u>0</u>

D. If the proposed project will require any permit for access to local or state highways, please attach a sketch showing the location of the proposed driveway(s) in relation to the highway and to the general development plan; identifying all local and state highways abutting the development site; and indicating the number of lanes, pavement width, median strips and adjacent driveways on each abutting highway; and indicating the distance to the nearest intersection.

E. Resource Conservation and Use

1. Might the project affect or eliminate land suitable for agricultural or forestry production?
Yes _____ No X

(Describe any present agricultural land use and farm units affected.)

Explanation and Source:

Due to its urbanized setting, the project site is not suitable for agriculture or forestry production.

2. Might the project directly affect the potential use or extraction of mineral or energy resources (e.g., oil, coal, sand & gravel, ores)? Yes _____ No X

Explanation and Source:

Almost all of the project site consists of filled land which has little or no potential use as a mineral or energy resource.

3. Might the operation of the project result in any increased consumption of energy? Yes X No _____

Explanation and Source:

(If applicable, describe plans for conserving energy resources.)

The rehabilitation and construction of the project and its occupancy will result in an increase in the consumption of energy. Building design will comply with the applicable Energy Conservation requirements of the State Building Code.

F. Water Quality and Quantity

1. Might the project result in significant changes in drainage patterns? Yes _____ No X

Explanation and Source:

Since all of the site is already paved or developed with buildings, significant changes in drainage patterns should not occur.

2. Might the project result in the introduction of pollutants into any of the following:

(a) Marine Waters	Yes _____	No <u>X</u>
(b) Surface Fresh Water Body	Yes _____	No <u>X</u>
(c) Ground Water	Yes _____	No <u>X</u>

Explain types and quantities of pollutants.

None

2. Might the project significantly affect vegetation, especially any rare or endangered species of plant?

Yes _____ No X

(Estimate approximate number of mature trees to be removed: 0)

Explanation and Source:

The project site consists primarily of buildings and paved parking areas, with some vegetation in the form of grasses and small brush.

3. Might the project alter or affect flood hazard areas, inland or coastal wetlands (e.g., estuaries, marshes, sand dunes and beaches, ponds, streams, rivers, fish runs, or shellfish beds)? Yes _____ No X

Explanation and Source:

The location of the site relative to the Federal Flood Hazard district should have no significant adverse effect on project areas or exacerbate flooding. The buildings involved in this project are not within the 100-year flood boundary

Source: Columbia Point UDAG - Phase I and Phase II Environmental Clearance

4. Might the project affect shoreline erosion or accretion at the project site, downstream or in nearby coastal areas? Yes _____ No X

Explanation and Source:

No significant adverse impacts on shoreline erosion or accretion will occur as the result of the proposed project. The proposed landscaping and shoreline improvements should substantially reduce erosion.

5. Might the project involve other geologically unstable areas? Yes X No _____

Explanation and Source:

The project site is characterized by man-made fill placed over tidal marsh (organic material, peat and silt) underlain by layers of clays and sands, glacial outwash and tills and bedrock. The fill and peat layers may necessitate the driving of piles for the proposed new construction.

Source: ENF for EOE #4520 and Project Engineer

D. Hazardous Substances

1. Might the project involve the use, transportation, storage, release, or disposal of potentially hazardous substances?

Yes _____ No X

Explanation and Source:

No use, transportation, storage, release or disposal of potentially hazardous substances on the project site is anticipated. Subsurface explorations and groundwater sampling has been conducted on site with no evidence of hazardous wastes concentrations exceeding EPA toxicity levels.

Source: Developer,

Haley & Aldrich and New England Research, Inc.

3. Will the project generate sanitary sewage? Yes X No _____

If Yes, Quantity: 308,440 gallons per day

Disposal by: (a) Onsite septic systems Yes _____ No _____
 (b) Public sewerage systems Yes X No _____
 (c) Other means (describe) _____

Based on 110 gallons/bedroom/day

4. Might the project result in an increase in paved or impervious surface over an aquifer recognized as an important present or future source of water supply? Yes _____ No X

Explanation and Source:

The project site is primarily a filled tidal marsh and is not a source of water supply.

Source: ENF for EOE A #4520

5. Is the project in the watershed of any surface water body used as a drinking water supply?

Yes _____ No X

Are there any public or private drinking water wells within a 1/2-mile radius of the proposed project?

Yes _____ No X

Explanation and Source:

No surface water bodies or drinking wells are located within a 1/2-mile radius of the proposed project.

Source: ENF for EOE A #4520

6. Might the operation of the project result in any increased consumption of water? Yes X No _____

Approximate consumption 339,284 gallons per day. Likely water source(s) METROPOLITAN DISTR. COMM.

Explanation and Source:

Based on 1.1 x 110 gallons/bedroom/day

7. Does the project involve any dredging? Yes _____ No X

If Yes, indicate:

Quantity of material to be dredged _____

Quality of material to be dredged _____

Proposed method of dredging _____

Proposed disposal sites _____

Proposed season of year for dredging _____

Explanation and Source:

No dredging will be required for the proposed project.

G. Air Quality

1. Might the project affect the air quality in the project area or the immediately adjacent area?

Yes _____ No X

Describe type and source of any pollution emission from the project site. Mobile source emissions.

The major source of air pollution in this area is caused by vehicular traffic on Morrissey Blvd. and the Southeast Expressway. The incremental increase in traffic resulting from this development will NOT result in a significant increase in air pollution. Site improvements, demolition and rehabilitation may generate temporary increases in particulate levels on a microscale basis.

2. Are there any sensitive receptors (e.g., hospitals, schools, residential areas) which would be affected by any pollution emissions caused by the project, including construction dust? Yes X No _____

Explanation and Source:

The Dever Elementary School, the McCormack Middle School, and the St. Christopher's Church are all located on Mt. Vernon St., directly opposite the proposed site. In addition, the site itself will have residential units which will be occupied during all phases of development.

3. Will access to the project area be primarily by automobile? Yes X No _____

Describe any special provisions now planned for pedestrian access, carpooling, buses and other mass transit.

A shuttle bus service from the project site to the JFK/U-Mass MBTA station is under consideration as a measure to reduce vehicular traffic to and from the site.

H. Noise

1. Might the project result in the generation of noise? Yes X No _____

Explanation and Source:

(Include any source of noise during construction or operation, e.g., engine exhaust, pile driving, traffic.)

Short-term increase in noise levels will occur during the construction period from construction equipment, demolition and pile-driving activities. No noticeable increase in L_{dn} noise levels are anticipated from the increased traffic generated by the project. As with air pollution, the major source of noise pollution is the vehicular traffic on Morrissey Blvd. and the Southeast Expressway.

2. Are there any sensitive receptors (e.g., hospitals, schools, residential areas) which would be affected by any noise caused by the project? Yes X No _____

Explanation and Source:

See response to G.2.

I. Solid Waste

1. Might the project generate solid waste? Yes
- ☒
- No
- ☐

Explanation and Source:

(Estimate types and approximate amounts of waste materials generated, e.g., industrial, domestic, hospital, sewage sludge, construction debris from demolished structures.)

It is estimated that demolition within the housing site could generate some 40,000 cubic yards, or 11,600 tons of debris. Occupancy of the project will result in the generation of approximately 95 cu.yds., or 7.2 tons of solid waste per day.

Source: Columbia Point UDAG - Phase I and Phase II Environmental Clearance

J. Aesthetics

1. Might the project cause a change in the visual character of the project area or its environs?

Yes ☒ No ☐

Explanation and Source:

Upgrading of the existing housing project and the deteriorating support structures will improve the visual character of the project site.

2. Are there any proposed structures which might be considered incompatible with existing adjacent structures in the vicinity in terms of size, physical proportion and scale, or significant differences in land use?

Yes ☐ No ☒

Explanation and Source:

The project site is surrounded by facilities of various uses, including schools, a church, U-Mass - Boston, the Bayside Exhibition Center, among other buildings. However, since the proposed project will retain the existing use of the site, no incompatibility should result with existing adjacent structures.

3. Might the project impair visual access to waterfront or other scenic areas? Yes
- ☐
- No
- ☒

Explanation and Source:

The design concept of the proposed project will significantly enhance the visual access to the waterfront by opening the site for views from Mt. Vernon St. and the interior of the site.

K. Wind and Shadow

1. Might the project cause wind and shadow impacts on adjacent properties? Yes
- ☐
- No
- ☒

Explanation and Source:

Building massing and siting is being designed to improve wind and shadow effects in comparison to existing conditions. In this regard, the proposed project will have a beneficial impact on adjacent properties.

IV. CONSISTENCY WITH PRESENT PLANNING

- A. Describe any known conflicts or inconsistencies with current federal, state and local land use, transportation, open space, recreation and environmental plans and policies. Consult with local or regional planning authorities where appropriate.

None

V. FINDINGS AND CERTIFICATION

- A. The notice of intent to file this form has been/will be published in the following newspaper(s):

(Name) <u>SO. BOSTON TRIBUNE</u>	(Date) <u>JANUARY 31, 1984</u>
<u>BOSTON HERALD</u>	<u>JANUARY 31, 1984</u>
<u>DORCHESTER ARGUS</u>	<u>JANUAR 31, 1984</u>

- B. This form has been circulated to all agencies and persons as required by Appendix B.

1/31/84
Date

Martina Jones
Signature of Responsible Officer
of Project Proponent

MARTHA L. JONES
Name (print or type)
CORCORAN, MULLINS, JENNISON, INC.
Address ONE HERITAGE DRIVE
QUINCY, MA 02171
Telephone Number (617) 328-3100

1/31/84
Date

Franklin G. Ching JR
Signature of person preparing
ENF (if different from above)

Franklin G. Ching
Name (print or type)
H.W. Moore Assoc., Inc.
Address 112 Shawmut Ave.
Boston, MA 02118
Telephone Number (617) 357-8145



LOCUS MAP

H. W. MOORE ASSOC., INC.
CONSULTING ENGINEERS
BOSTON, MASS.

SCALE:

DATE:

SHEET OF





The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

MICHAEL S. DUKAKIS
GOVERNOR

JAMES S. HOYTE
SECRETARY

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS

ON

ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : Columbia Point Redevelopment

PROJECT LOCATION : Boston

EOEA NUMBER : 5076

PROJECT PROPONENT : Columbia Point Redevelopment Team

DATE NOTICED IN MONITOR: February 7, 1984

Pursuant to M.G.L., Chapter 30, Section 62A and Sections 10.04(1) and 10.04(9) of the Regulations Governing the Implementation of the Massachusetts Environmental Policy Act, I hereby determine that the above referenced project does require the preparation of an Environmental Impact Report.

The proposed project calls for the construction and rehabilitation of 1,400 residential apartment units on the site of the existing Columbia Point Housing Project. The apartments will be of one- to six-bedroom configurations, totalling 2,804 bedrooms. Approximately half of the existing buildings will be demolished, with the remainder of the units being rehabilitated. Additional residential units will be contained in new townhouse and mid-rise (up to 12 stories) buildings.

Plans also call for the construction of other community-related amenities such as a community building, swimming pools, tennis courts, softball diamonds, tot lots and playgrounds. Two (2) parking garages, each of 200-vehicle capacity, will be built to supplement on-site parking.

The project is categorically included for preparation of an EIR under 301 CMR 10.32(5), 7, 16, 17, and 18, and the following will constitute the Scope for this required EIR.



GENERAL - The EIR should follow the outline contained in 301 CMR 10.05, and should address the following specific issues.

DEVELOPMENT SCHEME - The EIR should define specifically the development program including mix of low-, moderate-, and market-housing, the distribution of each on-site, identification of buildings for demolition/rehabilitation, building and roadway layout, landscaping, amenities, parkland, recreation, aesthetic considerations, and development schedule. This section should include phasing of development, accommodation of continuing residents and relocation schemes. In addition, this section should define the requirements for open space/recreation and public access and how these requirements will be met.

SITE CONDITIONS - The site is known to be an abandoned landfill. The EIR shall identify results of any testing for hazardous materials or gas emissions and should define procedures to be followed regarding monitoring for gas or hazardous materials during excavation and earthwork and define procedure for handling if these problems are discovered during site work or during occupancy.

The existing waterfront has deteriorated considerably. The EIR should carefully define what efforts will be made to re-establish a safe and aesthetically pleasing edge.

DEMOLITION - The proposal calls for demolition of a number of existing buildings. The EIR should define the demolition methodology with particular attention paid to control of fugitive dust that may contain asbestos and should report the disposal procedures and locations for demolition debris.

TRAFFIC - The EIR shall report the internal traffic and circulation scheme for the entire project including access to and from Mount Vernon Street and public transportation options.

The Boston Redevelopment Authority (BRA) is presently preparing an EIR for the Bayside Expo Center (EOEA # 4520) that includes an extensive analysis of present and future traffic conditions including the Columbia Point Redevelopment. The traffic portion of the Bayside EIR shall be reported in this EIR with any modifications that might be necessary to accommodate the presently proposed project.

FLOODING AND DRAINAGE - The EIR shall report the 100 year flood elevation on the site and show the extent on the site plan. This reported elevation should include both the base flood and wave height. If wave height data is not available for this site, the EIR should include an estimate and justification for wave height.

The EIR shall also include a drainage plan including discharge points and estimated quality of discharge.

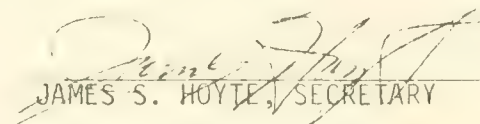
MISCELLANEOUS - The EIR shall identify means of complying with 14 CFR 77 as described in the attached letter from the Massachusetts Aeronautics Commission (MAC) and shall discuss what means will be used to reduce the effect of aircraft noise on residents.

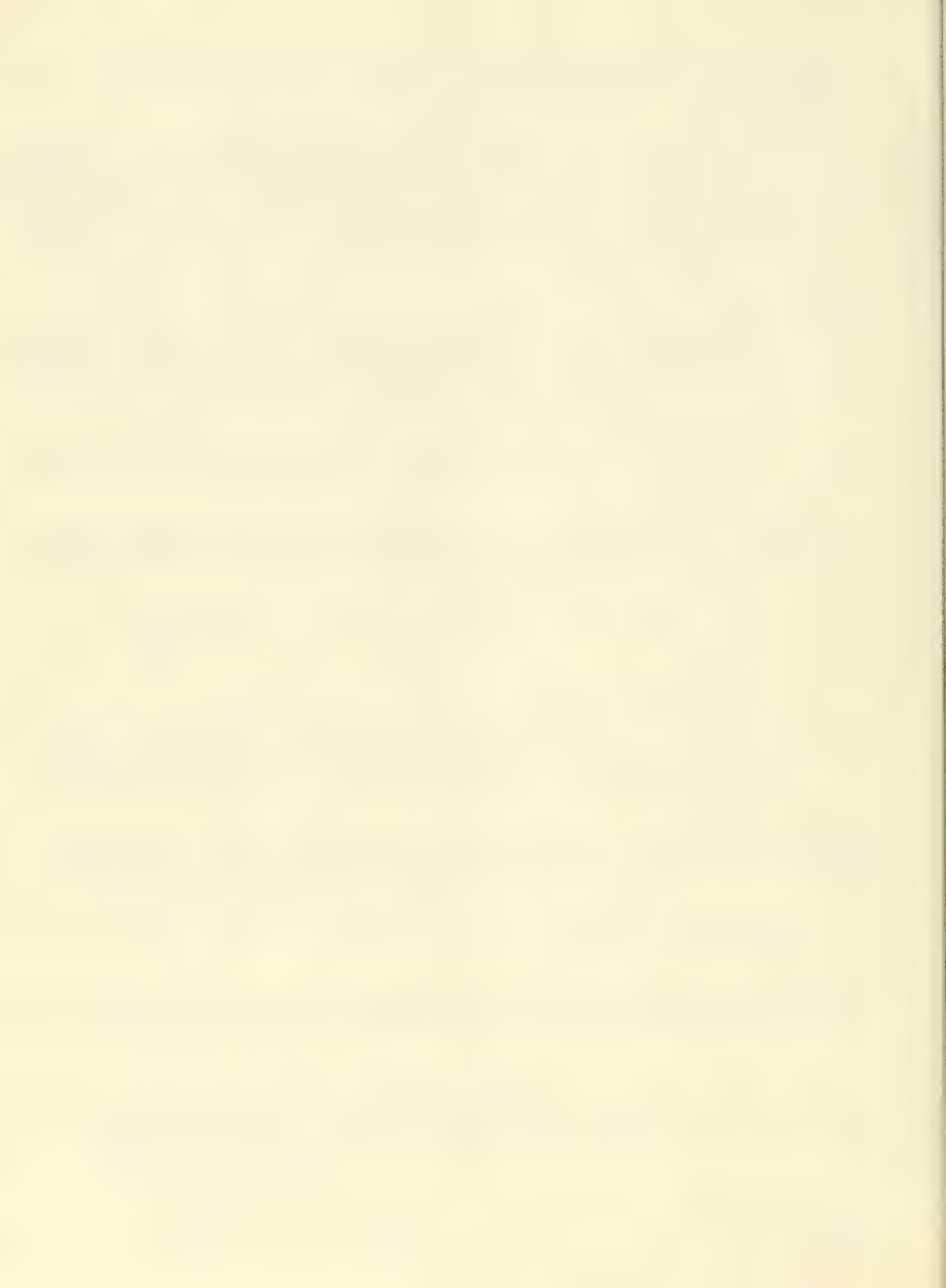
The issues contained in the attached comments from the Metropolitan Area Planning Council (MAPC), Boston Environment Department, Boston Redevelopment Authority, Division of Environmental Quality Engineering-Northeast Region Air Quality Control, and Coastal Zone Management should be addressed in the EIR.

March 7, 1984

DATE

JCH/RNF/dc


JAMES S. HOYTE, SECRETARY





ANTHONY D. CORTESE, Sc.D.
Commissioner
727-5194

The Commonwealth of Massachusetts

Department of Environmental Quality Engineering

Metropolitan Boston - Northeast Region

325 New Boston Street, Woburn, MA 01801

RECEIVED

FEB 22

M E M O R A N D U M

OFFICE OF THE SECRETARY
OF ENVIRONMENTAL AFFAIRS

TO: James S. Hoyte, Secretary
Executive Office of Environmental Affairs

FROM: Michael J. Maher, Section Chief *MJM for*

DATE: February 20, 1984

SUBJECT: Columbia Point Redevelopment Project, Boston, MA.
EOEA # 5076

This office has reviewed the environmental notification form for the proposed construction and rehabilitation project on the site of the existing Columbia Point Housing Project and offers the following comments for your consideration.

Given the current traffic situation in this area it may be necessary for the project proponent to further assess impacts from project related traffic. Should the traffic impact analysis indicate a level-of-service degradation below LOS C as a result of project generated traffic, an air quality impact analysis should be performed.

Further, given the potential for short term air quality impacts, it is recommended that the project proponent be made aware of and comply as necessary with DEQE air pollution control regulations 310 CMR 7.09 Dust and Odor, 7.10 Noise, and 7.02 Plans Approval.

Should you have further questions, please contact Heidi O'Brien, (292-5623).





The Commonwealth of Massachusetts
Aeronautics Commission

Boston - Logan Airport, Boston 02128

RECEIVED

February 7, 1984

FEB 9

OFFICE OF THE SECRETARY
OF ENVIRONMENTAL AFFAIRS

James S. Hoyte, Secretary
Executive Office of Environmental Affairs
100 Cambridge Street, Room 2000
Boston, MA 02202

Attn: MEPA Unit/

Re: EOE #5076, Columbia Point
Redevelopment

Dear Secretary Hoyte:

The proposed site lies near the flight paths for aircraft landing on Runways 4 Right and 4 Left or taking off on Runways 22 Right and 22 Left--so close that the buildings qualify under 14 CFR 77 as "Objects Affecting the Navigable Airspace" (see I,G of ENF).

As the project already requires an EIR, the Aeronautics Commission strongly recommends that the issue of ambient aircraft noise be carefully and thoroughly examined, that means to abate the impact of such noise on future occupants be incorporated into the project and that the environmental impact of inserting thousands of people into the site's ambient noise environment be assessed in the same manner as would be done for adding the noise for an existing population.

The Aeronautics Commission further recommends that appropriate structural soundproofing of all residential units be required.

Sincerely,

Arnold R. Stymest

Arnold R. Stymest
Director of Aeronautics

RK:ep





City of Boston
The Environment
Department

Boston City Hall/Room 805
Boston, Massachusetts 02201
617/725-4416 or 725-3850

February 28, 1984

Secretary James S. Hoyte
Executive Office of Environmental Affairs
100 Cambridge Street - 20th Floor
Boston, MA 02202

RE: Columbia Point Redevelopment EOE#5076

Dear Secretary Hoyte:

Thank you for this opportunity to comment on the Environmental Notification Form for the Columbia Point Redevelopment in Dorchester. The Environment Department feels that the following issues need to be stressed in the Environmental Impact Report.

Parkland, Open Space and Public Access

It appears that a large part of the development is on City owned Parkland. The City is presently lacking in parkland and open space according to federal standards. How is this development adding open space and parkland to the City for the use of the general public? How are the developers treating the waters edge to incorporate it into the Dorchester Waterfront Walkway?

Building Heights

Are the taller structures set back from the waterfront? Are the buildings arranged with visual paths to Dorchester Bay?

Energy and Sewage

Are the developers reviewing to use alternative energy sources such as passive or active solar energy? What about opportunities for on site treatment of sewage?

Traffic

What is the timing of construction, does it conflict with the Expressway rehabilitation? What happens when you add the traffic from the Expo Center events?

We hope that you will consider some of these problems in your scope for the Impact Report.

Sincerely,

L.M. Downey
Ex. Secretary





Metropolitan Area Planning Council

110 Tremont Street Boston, Massachusetts 02108 (617)-451-2770

Serving 101 Cities & Towns in Metropolitan Boston

February 27, 1984

The Honorable James S. Hoyte, Secretary
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

Attention: MEPA Unit

Project Identification:

Project Name: Columbia Point Redevelopment

EOEA#: 5076

Project Proponent: Columbia Point Development Team

MAPC#: ENF-84-67

Location: Columbia Point, Dorchester

Received: Feb. 3, 1984

Dear Secretary Hoyte:

In accordance with the provisions of Chapter 30, Section 62, of the Massachusetts General Laws, the Council has reviewed the Environmental Notification Form identified above and offers the following comments:

1. ☐ Environmental Notification Form adequate; no Environmental Impact Report should be required.
2. ☐ Before a determination can be made as to whether or not an Environmental Impact Report should be required, additional information should be provided on () probable environmental impacts, () alternatives to proposed action, and/or () measures proposed to mitigate probable impacts.
3. ☒ An Environmental Impact Report () should be required, (X) is categorically required.
4. ☒ Additional comments are attached. See comments by Geoffrey Bohem, MAPC representative from the City of Boston.

Sincerely,

Alexander V. Zaleski
Alexander V. Zaleski
Executive Director

AVZ/DB/lab

cc: Geoffrey Boehm, MAPC Rep., Boston
Alfred Howard, BRA
Martha L. Jones, Corcoran, Mullins, Jennison, Inc.
Donald Borchelt, MAPC Staff





Metropolitan Area Planning Council

110 Tremont Street Boston, Massachusetts 02108 (617)-451-2770

Serving 101 Cities & Towns in Metropolitan Boston

DATE: February 3, 1984

I.D. #: EW-84-67

TO: Geoffrey Boehm

COMMUNITY: Boston

RECEIVED

Enclosed is a description of the project referenced below.

The Council requests that you consider whether this report adequately describes the project's impact upon your community and addresses significant environmental benefits and potential damages.

PROJECT TITLE: Columbia Point Redevelopment

THE COUNCIL HAS ONLY 20 CALENDAR DAYS TO FILE COMMENT WITH E.O.E.A. TO MEET THIS DEADLINE, YOUR COMMENTS MUST BE RECEIVED AT THE MAPC BY February 22, 1984

- ☐ ADEQUATELY DESCRIBES ENVIRONMENTAL IMPACTS
- ☐ MERITS FURTHER ENVIRONMENTAL STUDY
- ☒ NEED MORE INFORMATION

EXPLANATORY COMMENTS: The Columbia Point Rehab/Redevelopment is needed. There are several unanswered questions to be explained: There is no mention of the City of Boston owned parkland, the location and how they are going to improve it and how much of it are they going to use for the project; are the community related amenities going to be opened to the general public; question the height of the proposed buildings, isn't 12 stories too-high for waterfront, are the taller buildings set back from waterfront, is there a planned open line of sight through the project to the harbor; need information on why solar energy is not proposed; is on site treatment of sanitary sewage planned, why not; how is the solid waste going to be stored and what is the planned disposal; the planned construction schedule indicates it will begin when the SE X-way is under rehab., must have traffic data and related impacts involving that project, routes to site, impacts and patterns with Expo Center, etc.

SIGNATURE: [Signature]

DATE: February 23, 1984





COASTAL ZONE
MANAGEMENT

The Commonwealth of Massachusetts

Executive Office of Environmental Affairs

100 Cambridge Street

Boston, Massachusetts 02202

MEMORANDUM

RECEIVED

MAR 5 1984

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

TO: Samuel Mygatt, MEPA Unit
FROM: Richard F. Delaney, Director MCZM
SUBJECT: Columbia Point Redevelopment (ENF #5076)
DATE: March 5, 1984

The Massachusetts Coastal Zone Management (MCZM) Office has reviewed the ENF (#5076) for the Columbia Point Redevelopment. The following comments address the issues which MCZM believes must be included in the scope for the required Environmental Impact Report:

1) Open Space and Recreational Area Impacts

The EIR should discuss the role open space and recreation play in a community like Columbia Point that is an isolated part of the city. With a history of beaches being inaccessible due to social problems all recreational space in or near the development take on a special significance. The EIR should address the short and long term impacts of construction on open space. CZM is especially interested as to the development, use and maintenance of the beaches and passive recreation in the coastal areas, how will they be altered and what is the projected view of their uses for present and future residents and the public. The EIR should also discuss the proposed development in relation to regional recreational or open space plans.

2) Construction Impacts on Residents

Question G + A discussion as to the dust and fall out from demolition should take place. Even on a micro scale its impacts on those living in the areas is important (especially, health, day care centers and the schools). If residents are present throughout construction how will they have access? What impacts will there be on food and service deliveries. The EIR will need to develop the protocol for dealing with the containment, transport, and disposal of any hazardous



material that is generated during construction (e.g. asbestos) or excavation into the landfill material (eg. H_2S , Methane, toxic chemicals).

3) Traffic Circulation

While we recognize that a traffic analysis of the area is currently under review by MEPA, it appears that several traffic related issues still need to be resolved. For example, how will demolition material be removed; what will the increase in truck traffic be and how will this truck traffic be affected by the reconstruction of the Southeast Expressway? What will be the present and future transportation patterns in and around the development especially as it relates to the use of public facilities, homes, and recreational facilities?

4) Floodplain/Storm History

The EIR should address the extent, if any, of the 100-year floodplain on this site including stillwater and wave elevations. An examination of the storm history of this area as well as any coastal erosion problems are needed.

5) Visual Access

The EIR should address the potential impacts associated with construction and removal of buildings on this site as it relates to visual access to the waterfront. Of special interest, is an assessment of placing large, tall buildings at the water's edge.

6) Infrastructure

The EIR must address the existing infrastructure (roads, sewers, electric, water, fuel and storm drains) and evaluate how the proposed construction will impact the integrity of the existing infrastructure as well as increase or decrease the demand for such facilities? Is the existing infrastructure adequate? For example, any increase in impermeable surfaces will require improved drainage systems. What plans are being prepared for the waterfront area of the site. The existing paved "roadway" is seriously being undermined by storm wave activity. The rip-rap on the beach is not properly placed, presents a serious impediment to beach use, and is not satisfactorily resolving the erosion problem.



7) Tidelands

Most, or not all, of the Columbia Point area is on filled land. Originally, this area was tidelands (tidal flats or submerged lands) and therefore subject to the jurisdiction of MGLA Ch. 91. The EIR needs to determine what Ch. 91 licenses were issued for this fill, the conditions which may have been attached to any licenses, and how the past and proposed changes relate to the conditions in the licenses.

RFD:LE:GC:sla



Boston Redevelopment Authority

RECEIVED

MAR 5 1984

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

February 27, 1984

Robert J. Ryan, Director
Secretary James Hoyte
Executive Office of
Environmental Affairs
100 Cambridge Street
Boston, MA 02202

ATTN: MEPA Unit

Dear Secretary Hoyte:

RE: EOEA #5076: Columbia Point Redevelopment - Dorchester, Boston

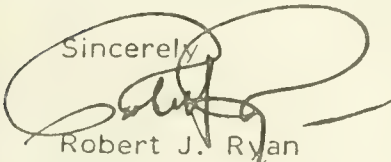
Pursuant to regulations implementing M.G.L., Chapter 30, Sections 62-62H, the Boston Redevelopment Authority has reviewed the Columbia Point Redevelopment ENF.

We feel that the ENF has identified the appropriate areas of concern for study in the Environmental Impact Report. In addition, the long term impact of the project on recreational and open space as well as on beaches should be analyzed. Alternatives for treatment of the shoreline and the impacts of each option should be included in the EIR. We also recommend that the proponent coordinate the project with the Boston Water and Sewer Commission early in the process to identify any drainage problems and appropriate alterations that should be addressed in the EIR.

The proponent has conducted a toxic waste analysis for the project site and no concentrations of hazardous substances in excess of EPA toxicity levels were detected at the boring locations studied. However, since the project site formerly was a City dump, the possibility of hazardous or toxic wastes being uncovered still exists. Therefore we strongly recommend that an environmental engineer/inspector be present on site during excavation construction to ensure that any isolated hazardous substances which may be uncovered will be properly disposed to protect public health and water quality.

We feel that this is a very important project to the residents of Boston and look forward to working with the developer and MEPA to ensure that the environmental impacts of the proposal are minimized and that the project enhances this waterfront site.

Sincerely,



Robert J. Ryan
Director

LA1/HH/022784
Boston, Massachusetts 02201
(617) 722-4300



PART II

SUMMARY

II. SUMMARY SHEET

A. BRIEF DESCRIPTION OF PROJECT AND PROJECT AREA

The existing Columbia Point public housing project is located on the Columbia Point peninsula in Boston's Dorchester neighborhood. The 350-acre peninsula extends into Dorchester Bay and is accessed by Morrissey Boulevard and the Southeast Expressway. The land uses on the peninsula are predominantly institutional or business including the Bayside Exposition Center, Bank of Boston, the Boston Campus of the University of Massachusetts, and the John F. Kennedy Library.

Built in the early 1950's, the 1504-unit Columbia Point Housing Project was the product of the then prevalent philosophy that low income housing was most effective if it was concentrated in one area to allow for the efficient delivery of services. Thus, the development was built on 50 isolated acres of filled land at Columbia Point.

Over the years the project has changed from a racially-mixed, well-maintained housing project to a partially abandoned site populated predominately by minority families. In addition, more than 50% of the project's 1504 units have become vacant since the mid-1970's.

Numerous studies and proposals have been developed to address the problems of Columbia Point. Over the past two years, the Boston Housing Authority (BHA), the Boston Redevelopment Authority (BRA), the Columbia Point Community Task Force (CPCTF) and a team of private developers have developed a comprehensive plan for the revitalization of Columbia Point. The goal of Harbor Point is to develop a 1282-unit mixed-income rental community on the site of the existing project. Major components of the redevelopment plan include the following:

- (1) The development will be undertaken by a public/private partnership. The land, currently controlled by the City and the BHA, will remain in public ownership and will be leased to a private development group. The group includes several experienced real estate development companies and the CPCTF. The inclusion of the CPCTF as a long-term general partner will guarantee tenant involvement and input at Harbor Point.
- (2) The physical and social image of the project site will be modified through major design changes including demolition of more than half of the buildings. In

addition, the introduction of private management and the provision of additional social services to the existing residents are considered critical elements for changing the image of the project. To realize this goal, CMJ Management Company assumed management responsibilities of the property on October 1, 1984. A private social service group, Housing Opportunities Unlimited, has also begun operation at the site.

- (3) The site layout will be redesigned to take advantage of its waterfront location by opening view corridors of the water. In this manner, the waterfront will become an asset to the residents of Harbor Point as well as providing the general public with visual and physical access to Dorchester Bay.
- (4) All units in the development will be designed to the same high-quality specification and will include tenants of various incomes. This is essential to accomplishing the goals of racial and economic integration.

Since the selection of the development group in October, 1983, significant project planning has occurred. The major sources of funding for this project have been identified and many have been secured. Based on the present project schedule, construction is to begin by the end of 1985. A summary of the source and status of the project financing is as follows:

<u>Program</u>	<u>Status</u>
Section 8 Rental Subsidy	These funds are to be transferred from other projects in Boston. Funding has been secured to allow 350 low income units. Final HUD approval of the procedures for the transfer are pending. Requests for additional Section 8 funds are also pending.
Urban Initiatives	Funds have been received by the Boston Housing Authority and are being utilized for management improvements.
Tax Exempt Financing	The MHFA has committed \$95,829,200 for the construction and permanent bond financing of the project.

A request for a mortgage increase has been made to the MHFA.

Urban Development Action \$12 million in UDAG funds have been awarded to the City of Boston for this project.

SHARP The Legislature has appropriated funds to provide SHARP subsidy to make the project feasible. An application is pending.

Chapter 707 State Rental Subsidy The Massachusetts Executive Office of Community Development has committed funds for the subsidy of 50 low-income units.

Harbor Point's design has also been progressing since the time of designation. Based on completed site plans and site surveys, the various official permitting process began in early 1985. These include Boston Zoning Commission, DEQE Chapter 91 Licenses, and Coastal Zone Management approvals in addition to other approvals identified in this EIR. The major issues to be addressed included the treatment of the waterfront area; including public access and the stabilization of the shoreline to prevent erosion. Additional funding is being requested through the MDC to support further improvements to the waterfront.

B. STATE IDENTIFICATION NUMBER

EOEA #5076

C. PROJECT PROPONENT/LEAD AGENCY

Columbia Point Redevelopment Team

D. STATUS

Final Environmental Impact Report

E. ALTERNATIVES CONSIDERED

1. The Preferred Alternative

Demolition of 17 of the existing 30 buildings, the rehabilitation of the remaining low- and mid-rise structures and the construction of 37 additional

buildings. Building types will consist of townhouses, low- and mid-rise buildings. A total of 1282 units will be constructed: 400 units will be available for low-income housing residents and 882 units will be available for moderate-income and market residents.

2. Rehabilitation for Continued Public Housing Alternative

All buildings would be rehabilitated to provide 1100 units of public housing in addition to the currently occupied units.

3. Non-Residential Use Alternative

Demolition of the existing housing project and development of office or light industrial facilities.

4. No-Build Alternative

Rehabilitation of currently occupied units and demolition of unoccupied buildings.

F. SUMMARY OF MAJOR BENEFITS AND ENVIRONMENTAL IMPACTS OF THE PROJECT

The major benefits of the proposed Harbor Point project include:

1. the elimination of a blighted, partially abandoned property;
2. the expansion of rental housing in Boston by the addition of 882 moderate-income and market units while providing 400 low-income units for current Columbia Point residents;
3. the aesthetic enhancement of the shoreline and the development of an important link in the public park/walkway of Dorchester Bay.
4. the increase of social services, recreational facilities, security and convenience/retail stores; and,
5. the provision of employment opportunities and job training for current Columbia Point residents.

The major environmental impacts of the project include:

1. an increase in project-related traffic which will contribute to reduced levels of service at several intersections.

2. elevation of carbon monoxide levels due to the overall development of the Peninsula, however Harbor Point itself will not result in any violations of either the one- or eight-standards for carbon monoxide.
3. increases in water consumption, energy use and sewage and solid waste generation.

PART III

DESCRIPTION OF THE PROJECT

III. DESCRIPTION OF THE PROJECT

A. INTRODUCTION

The proposed Harbor Point development is designed to rehabilitate the existing Columbia Point Housing Project by the creation of 1282 mixed-income housing units. (Figure III-1).

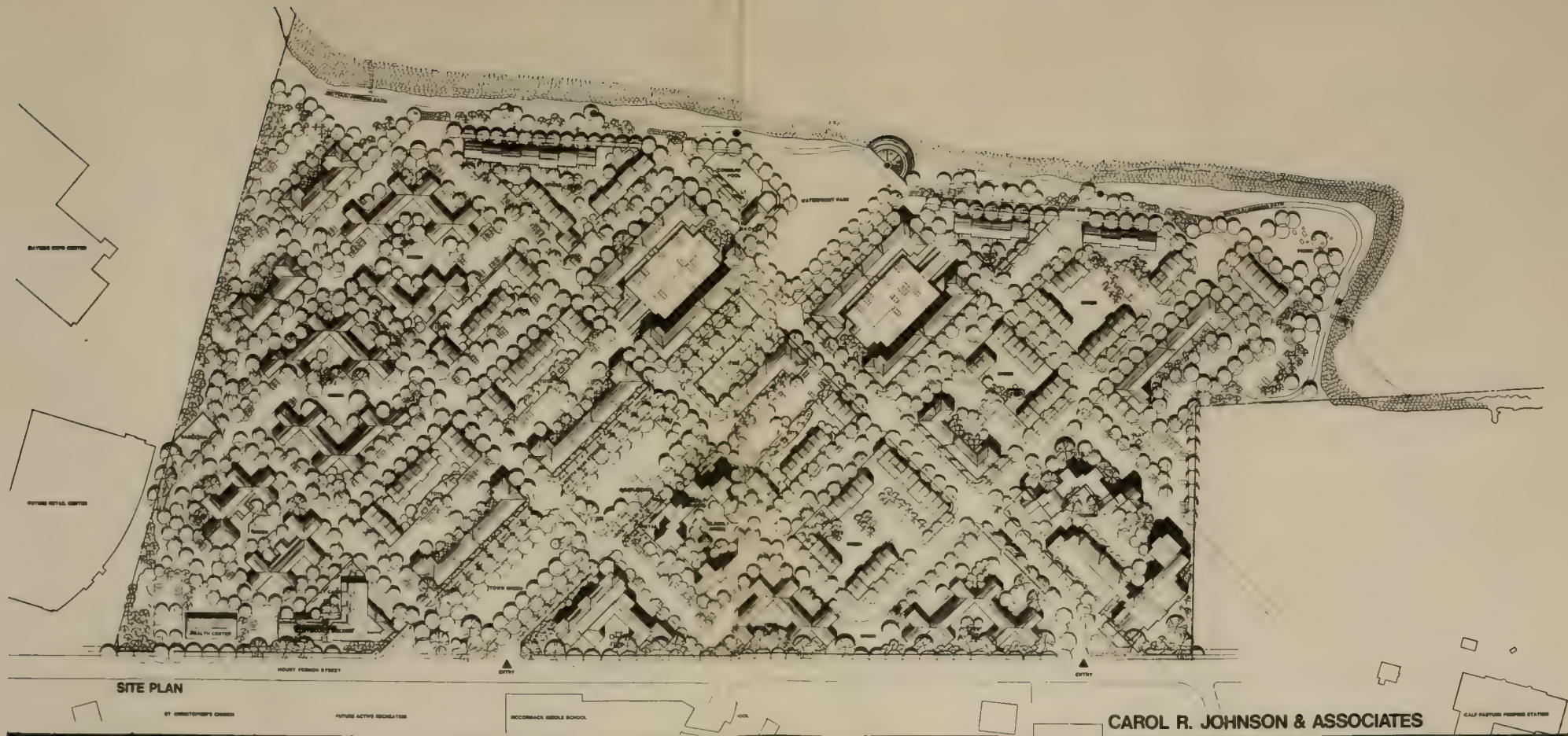
The goal of Harbor Point is to provide residents with a more desirable living environment in comparison to the existing housing project. The proposal calls for a variety of residential unit types, including townhouses, lowrises, and midrises (offering large flats and duplexes). Site amenities will include a community building, clubhouse, swimming pools, tennis and basketball courts, tot lots and retail and other facilities. These features should help to complement and support the social objective of the redevelopment, which is to provide a racially and economically mixed neighborhood. In addition, a revised street layout will provide residents and the public with a panoramic view of the Bay and downtown Boston (Figure III-2).

One feature component of this proposal is the partnership between the Columbia Point Community Task Force (CPCTF) - a non-profit corporation made up of existing Columbia Point residents - and the developer. Under this partnership, the tenants, through CPCTF, are a general partner involved in the decision-making processes during the development, construction and management phases. The partnership will establish a long-term rental housing program to provide for a mixed-income community at Harbor Point.

B. PROJECT BACKGROUND

Located on the Columbia Point peninsula on Dorchester Bay in Boston, the Columbia Point Housing Project was constructed in 1953. It was during this time period when planners and sociologists believed that constructing low income housing in one area would serve tenants best. With this in mind, the 1504-unit, 30-building Columbia Point Project was built on 50 acres of fill on the Peninsula.

Since its construction, however, the results have not been favorable. Rather than allowing for efficiency, the site has isolated tenants from services which cater to a mixed-income population. Due to a variety of factors, the population of Columbia Point has gone from racially mixed to predominantly black and Hispanic. In addition, the poor living conditions have resulted in over 50% of the units being vacant by the mid-1970's.



HARBOR POINT

DATE: 11-27-84 REVISED: 9-25-88

FIGURE III-1

SCALE 0 10 50 100

CAROL R. JOHNSON & ASSOCIATES

GOODY, CLANCY & ASSOCIATES

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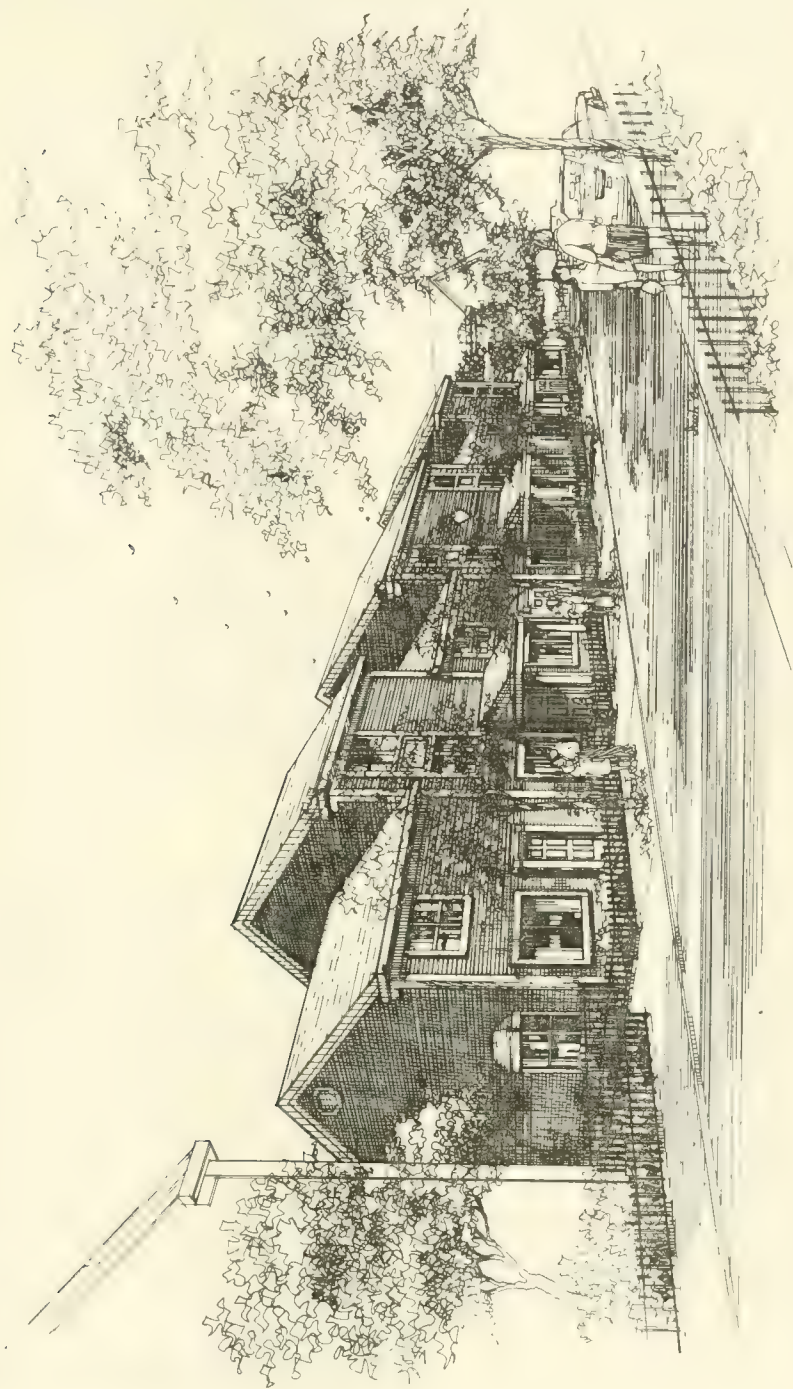


Figure III-2

Since 1970, various plans for the revitalization and improvement of Columbia Point have been discussed. Review of these plans led to the following conclusions:

1. The isolation and dense configuration of Columbia Point make the return to a 1504-unit public housing development untenable.
2. 400 low-income units should be made available after redevelopment for those existing families who have remained at Columbia Point.
3. The most feasible plan for the provision of viable housing at Columbia Point is to create a mixed-income community.

Based upon careful consideration of these and other arguments, the U.S. Department of Housing and Urban Development (HUD), the Boston Housing Authority (BHA), and the CPCTF all agreed that mixed-income housing would be the best possible alternative. This solution was reached after consideration of both the housing problems and the site's location. The location and accessibility, in addition to the natural and physical amenities, has rendered the Columbia Point peninsula one of the more desirable sites for new development in the City of Boston (See Figure III-3).

In October, 1983, the BRA and BHA tentatively designated Corcoran, Mullins, Jennison, Inc. (CMJ) and Columbia Associates as joint developers of Columbia Point. A requirement of tentative designation was the development team's acceptance of the terms of the Resident Rehousing Agreement and the Columbia Point Developer Selection Memorandum of Understanding (MOU) between the BHA, BRA and the CPCTF (see Appendices B and E). These agreements establish the requirements for the maintenance of low-income housing and protection of the rights of current residents. The resulting merged private developer partnership, Peninsula Partners, includes the CPCTF; CMJ; Cruz Construction Co., Inc; Housing Associates, Inc; Peabody Construction Co., Inc; and South Boston Development Company.

C. PROJECT AREA DESCRIPTION

Originally marsh land, a series of land fill projects expanded the peninsula to its present 350-acre size. Prior to the construction of the housing project in 1953, however, the peninsula had been underutilized, containing only a sewer pumping station, a dump, an abandoned army camp and a single industrial building on Mt. Vernon Street.



Figure III-3

Additional development occurred at Columbia Point during the 1950's and 1960's including the construction of Bayside Mall, Bank of Boston Computer Center, Boston College High School, Dever Elementary and McCormack Middle Schools and St. Christopher's Church. Other institutions have been constructed on the peninsula in recent years, including the John F. Kennedy Library and the University of Massachusetts Harbor Campus.

The JFK Library is located on the northeastern corner of the peninsula and was dedicated in October of 1979. The presidential library is visited by approximately 700,000 people annually.

South of the Library, the University of Massachusetts has developed sixty of the 103 acres under their ownership. Included within the development are 1.6 million square feet of building space and 1600 parking spaces. Future plans call for the construction of a third college and an Arts and Science Building. In addition, the Commonwealth of Massachusetts has begun construction of the State Archives building between the JFK Library and the U-Mass Campus.

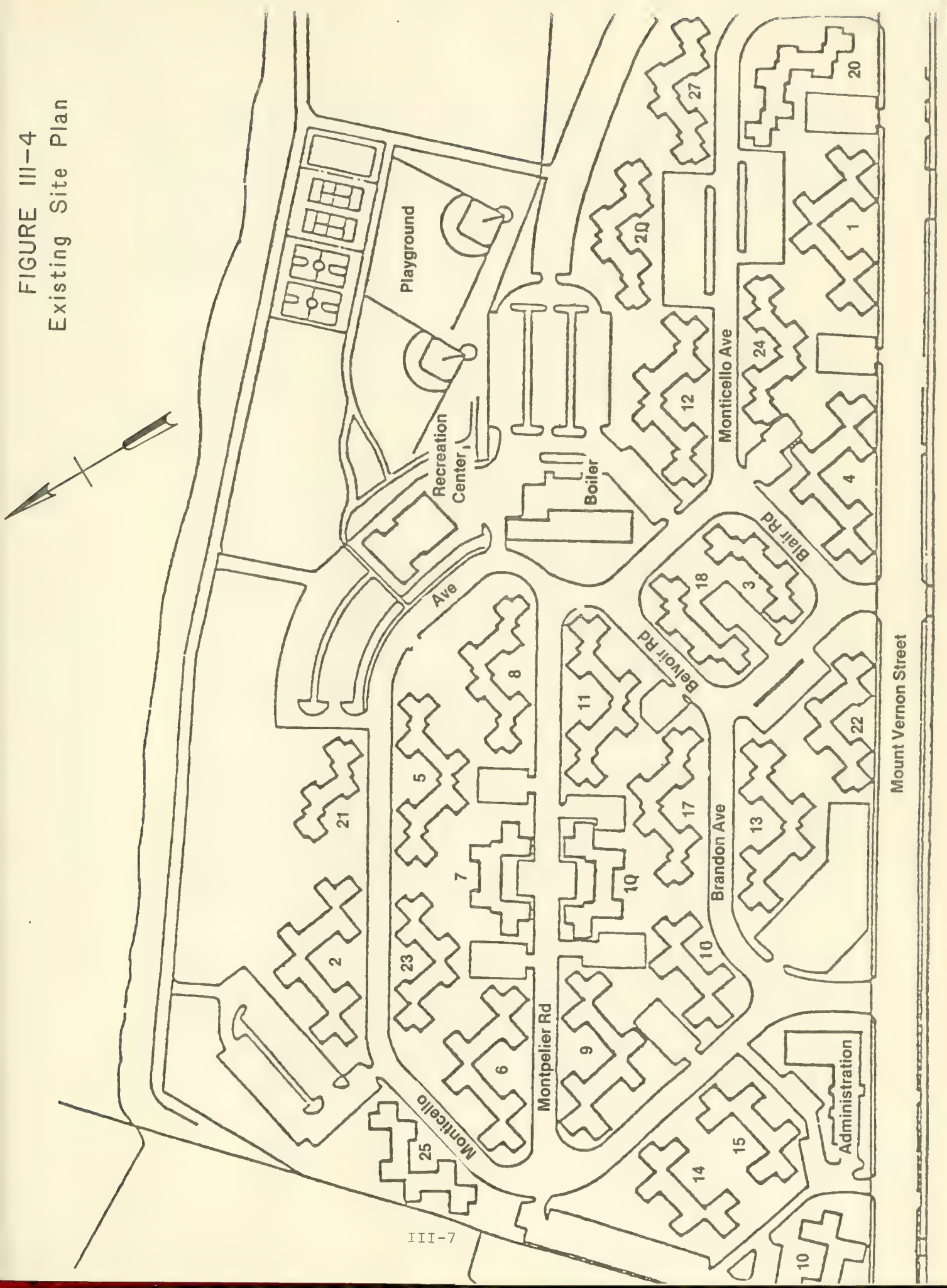
The most recent development at Columbia Point has been the rehabilitation of the vacant Bayside Mall into the largest trade center in New England. The new Bayside Exposition Center accommodates both trade and gate shows along with permanent display and office space for the garment industry.

The site of the existing Columbia Point Housing Project consists of several parcels encompassing approximately 50 upland acres zoned for residential (apartment) and industrial use. One parcel of 38.65 upland acres is owned by the Boston Housing Authority and is the site of the Columbia Point housing project. The project consists of 3 one-story, non-residential buildings and 15 seven-story and 12 three-story residential buildings (see Figure III-4). The low-rise buildings generally are located along Mt. Vernon Street and the western portion of the site while mid-rise buildings are densely located within the central and eastern portions of the site. An administration building is located on Mt. Vernon Street and contains office space, an assembly hall and a day-care center. The remaining non-residential buildings include a City of Boston recreation building and a recently-renovated steam-heat oil-fired generation plant.

The remaining four parcels of 11.97 upland acres were transferred by the BHA to the City of Boston in 1970. This transfer allowed the City to avail itself of Federal monies in order to improve a 5-acre portion of the property.



FIGURE III-4
Existing Site Plan



Utilizing National Park Service funds, the City upgraded the existing tennis and basketball courts, baseball fields and tot-lot, and installed lighting for night use of these facilities. However, due to lack of maintenance, the area is in poor condition and the recreation center has been closed.

D. DETAILED PROJECT DESCRIPTION

1. Concept

The redevelopment plan proposed for Columbia Point calls for the rehabilitation and/or construction of 1282 units of housing. A new street pattern will be developed in order to open views to the ocean from Mt. Vernon Street and other parts of the site (See Figures III-1).

The concept for Harbor Point is a consolidation of proposals submitted by the two finalists in the Request for Proposals for the Columbia Point Housing Project. The submission by CMJ called for developing a mixed-income community of 1200 units distributed on an even economic basis to low-income, moderate-income and market-rate levels. Columbia Associates offered a similar proposal with 1600 units of housing distributed again on an even basis. After extensive review of both plans with the BRA, BHA, CPCTF and the two proponents, a compromise total of 1400 units was selected. It was felt that this will allow a significant increase in total rental units within the City, while assuring that the project's density will not become unmanageable.

In September 1985, the developer received from the General Contractor the construction price for Harbor Point. The price presented exceeded the approved budget by millions of dollars, thus presenting the development team with the dilemma of how to build the project within a reasonable cost frame. In order to do so, a new alternative was designed and chosen for Harbor Point, reducing the total number of units by 118.

In recognizing the costs associated with the four stepped midrise buildings originally planned for along the waterfront, the new site plan depicts a total of 1282 units. These four stepped midrise buildings were not only the most expensive buildings proposed for the site, but were also determined to be the least efficient. In order to redesign the site three alternatives were analyzed by the development team. They were as follows:

Alternative 1): Replace the four stepped-midrisers, and the townhouses located on Block 8, with five of the new midrise buildings located on Block 15 (See Figure III-5, the 4/17/85 site plan). This alternative was rejected because 60 ground access family units would be lost with this design. In addition, it required the redesign of buildings on Blocks 1 and 9 because of site access and density considerations.

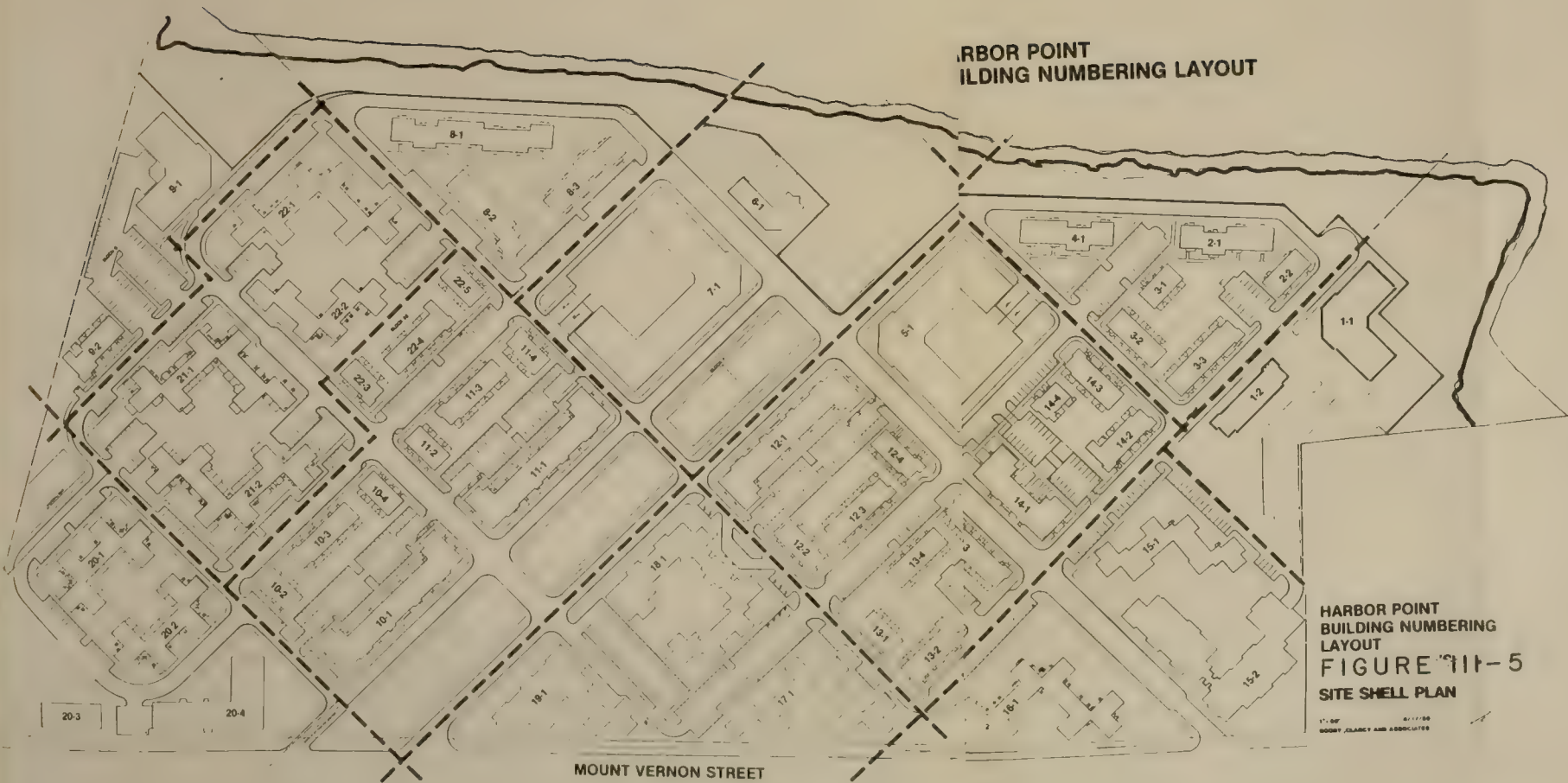
Alternative 2): Redesign the four stepped-midrisers from 15 to 11 stories, using concrete blocks and planks for their building materials. This alternative required the complete redesign of over 500 units and the associated costs involved in the bidding process as well as the elimination of the parking garage. The excess demand would be relocated to on-street spaces. Therefore, the development team could not confidently predict the cost savings that would result, nor could they be confident regarding the quality of the new design.

Alternative 3): Replace the stepped-midrisers with seven (7) six- and seven-story mall buildings. The eleven-story stepped-midrise located on the eastern end of the site would be replaced by one seven-story mall building. The eleven-story stepped midrise on the western end would be replaced with two six-story mall buildings. The two fifteen-story stepped-midrisers located along the mall would be replaced by two (2) seven-story mall buildings with structured parking in between each set of buildings. This alternative was selected based upon construction costs and the efficiency of the proposed mall buildings.

The site plan concept of a strong urban edge along the mall was previously reinforced by the stepped midrise buildings. With the substitution of mall buildings, this concept is continued; the change in height, and possibly brick colors, will maintain a sense of variety of building types and a strong edge. The addition of grade level access for individual families in these locations will also create more lively street-oriented neighborhoods in each area of the site where the stepped midrisers have been eliminated.

One major advantage afforded by the reduction of the total number of units is lessening the impacts of parking on the blocks along the waterfront. Shadow and wind impacts are also mitigated by the smaller building

HARBOR POINT
BUILDING NUMBERING LAYOUT



heights. The heights were determined by the desire to achieve the maximum number of units while reducing construction costs, as well as the relationship the mall buildings have to the surrounding buildings and open space.

Harbor Point calls for a mixture of private rental housing with a distribution of 400 low-income and 882 moderate-income and market-rate housing units. Of these units, one will be a studio, 378 will be one-bedroom, 652 will be two-bedroom, 175 will be three-bedroom, 60 will be four-bedroom, 12 will be five-bedroom and 4 will be six-bedroom apartments. The final composition of the apartments may vary slightly in terms of number of bedrooms.

The present design calls for the following types of units:

New midrise (at marketing ent.)	- 100 units in 1 building
Mall Buildings	- 618 units in 11 buildings
Townhouses	- 198 units in clusters
Rehab midrise	- 143 units in 3 buildings
Rehab lowrise	- 223 units in 9 buildings

Although there will be no age restrictions at Harbor Point, a 90-unit building for the elderly is a special provision in the concept. Apartments in the other buildings would, of course, also be available for elderly tenants.

2. Site Plan

The street layout and building pattern of the existing housing project forms a virtual wall along Mt. Vernon Street, obstructing views of Dorchester Bay. Since the present site layout has little potential for improvement, the most practical solution to alleviate these problems is the demolition of 17 of the existing 30 buildings.

The decision to demolish buildings was based primarily on their size, condition and location with respect to the new site plan. Rehabilitation of the remaining buildings will enable savings in foundation and structural costs. In general, the seven-story buildings will be demolished while the three-story buildings will

be rehabilitated.

The Harbor Point site plan has been extensively reviewed by all agencies involved in the development process. Although the basic design concept remains consistent with CMJ's original plan proposed in 1983, specific issues regarding building design and locations have been the subject of extensive review and comment by the financing and environmental review agencies. This resulted in a number of revisions since the publication of the Draft EIR.

One area of concern led to the following revisions in the site plan along the waterfront. The size of the private "active" recreation area had been reduced by the relocation of the basketball court to another location as well as the consolidation of the pool/clubhouse into a smaller area. In order to mitigate impacts upon the new waterfront park, townhouses will be located on the northeastern edge of the site, where the 11-story stepped midrise building was previously, and the mall building which will replace the stepped midrise will be set back from the waterfront park. The two streets that parallel the water are now one-way, thus reducing road pavement. Finally, the gazebo planned for the end of the mall has been removed, and replaced by an open viewing terrace, creating a new focal point. The result of these changes has been to increase the size of the public park along the waterfront and reduce the impacts of buildings upon it. In addition, the replacement of the stepped-midrisers by the smaller mall buildings will further reduce wind and shadow impacts upon open space and the waterfront.

Other site plan changes include the addition of a health center on Mt. Vernon Street near the Bayside Exposition Center. This center will serve not only the residents of Harbor Point, but the larger Peninsula and Dorchester communities as well.

Several other changes will create better "buffers" along the other edges of the site. Adjacent to the Boston Water and Sewer Commission land the parking area will now abut the property line, and a planting area will separate Harbor Point from its neighbor. This change also allowed the relocation of the neighborhood play area to a more visible location.

The concept of the proposed site plan is to expand views of the water by the establishment of a consistent diagonal street layout. A new "town green" will link

the recreational space along the waterfront to the residential area, creating a main street for the development and allowing a public connection from Mt. Vernon Street to the waterfront. The green will be one of the public areas of the community, with convenience shopping, recreation areas and other facilities along the perimeter (See Figure III-6). Plans also call for bus service along the main street. Private residential streets will branch off from the main street and will provide access to both the town green activities and the waterfront.

3. Open Space and Recreation Facilities

The proposed site plan calls for numerous areas of open space in order to create the proposed neighborhood pattern of the development. As in older New England towns, the concept calls for a tree-lined, central "town green," or mall, with housing and community facilities on either side. The green will run from Mt. Vernon Street to a waterfront park consisting of passive recreational facilities.

As the major open space area within the new community, the town green/mall accommodates passive recreation facilities on two of the blocks. On the middle block, the playground and shuffleboard courts are sited next to the pathway in order to provide space for passive recreation on the lawn. On the third block, seating adjacent to the tennis courts and on the pathway provide gathering places for spectators. In all cases, the facilities are sited to ensure that the tree-framed harbor view remains unobstructed, maintaining Harbor Point's connection with Dorchester Bay. In addition, the ground plane is manipulated to reduce the apparent height of the recreational facilities.

A multi-use community building located at the Mt. Vernon Street end of the green will contain a daycare center, community meeting space and the management and maintenance offices. Midway on the green will be the adult recreation area with a shuffleboard and horse shoe game area, directly across from the elderly housing, providing activities for senior citizens to participate in and observe. A small retail store will be located on the bottom floor of the elderly building.

Further up the green, toward the waterfront, will be the platform and regulation tennis courts, as well as an area for other active adult recreational activities. At the waterfront park, a viewing terrace will be created to draw people to the waterfront. The clubhouse

Harborwalk Park



Community Mall



Shared Green



Playground and Tots

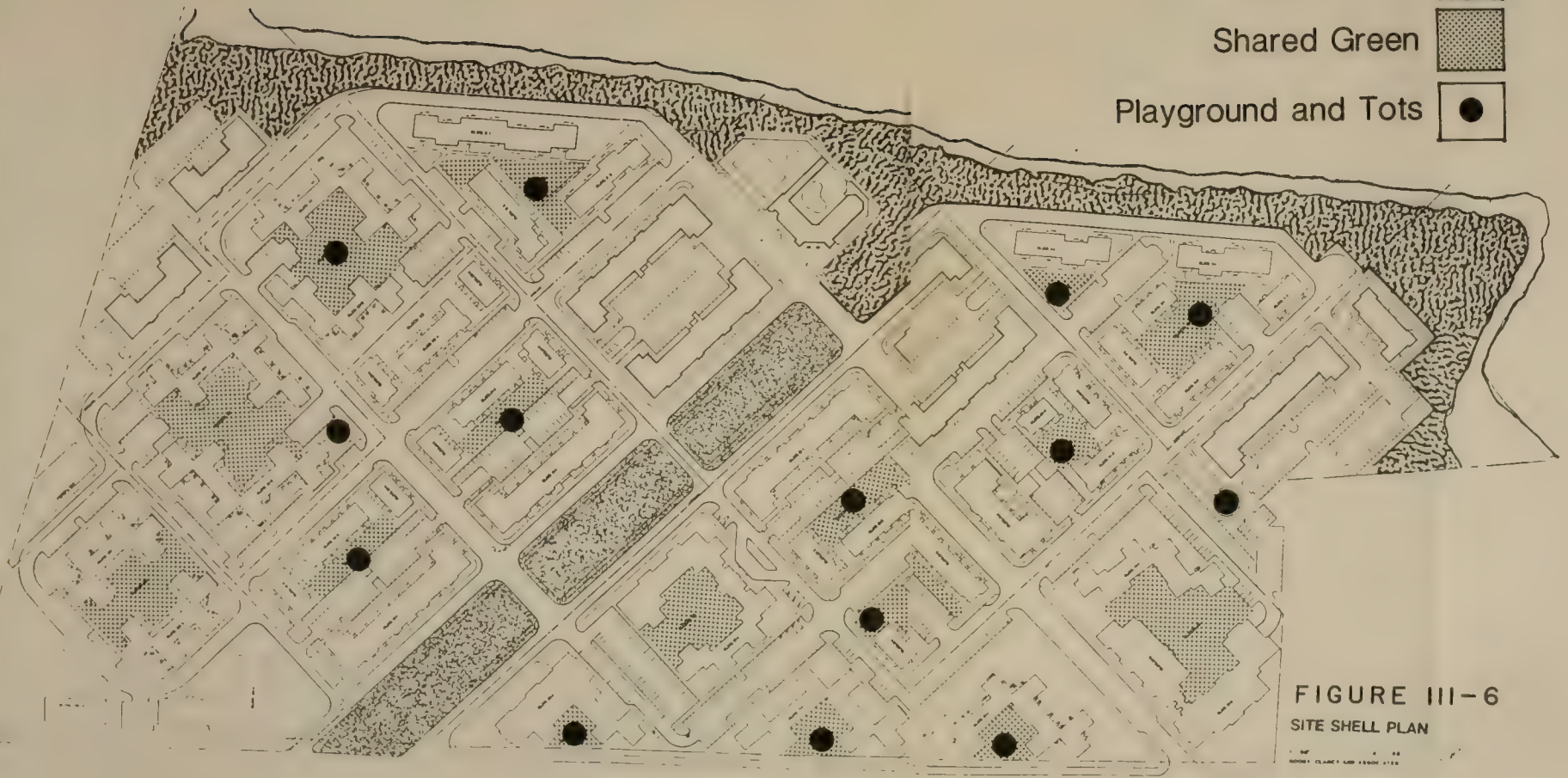


FIGURE III-6
SITE SHELL PLAN

1" = 100'
NORTH ARROW
DATE: 11/10/10

and swimming pools (both adult and family) are also proposed for this area attracting residents from throughout the development to the site. In addition to housing family, teenager, and adult recreational activities, the clubhouse will also contain the CPCTF and Resident Services offices, tutoring, and counseling programs.

A 5.5 acre multi-use public park, to be owned and operated by the MDC, will be developed along the entire length of shoreline adjacent to Harbor Point. By connecting to other MDC park land along the Bay, the new park is an attempt to provide a continuous waterfront park. Landscaping and signage will clearly identify the park as public open space (See Figure III-7). The park will have a minimum width of 50 feet, providing a pathway for pedestrians, joggers, and bicyclists. At several places, the park will widen to provide places for sitting, informal games and special viewing areas. In addition, two small beaches will be upgraded and fishing allowed in certain areas.

Within the interior of Harbor Point, the smaller neighborhood areas are to be located. In these areas the buildings will be sited to enclose green spaces for the adjacent residents. Landscaping, benches and child play areas are typical features of these neighborhood areas. The areas will alleviate an existing social problem of no safe area for children to play within the vicinity of their homes.

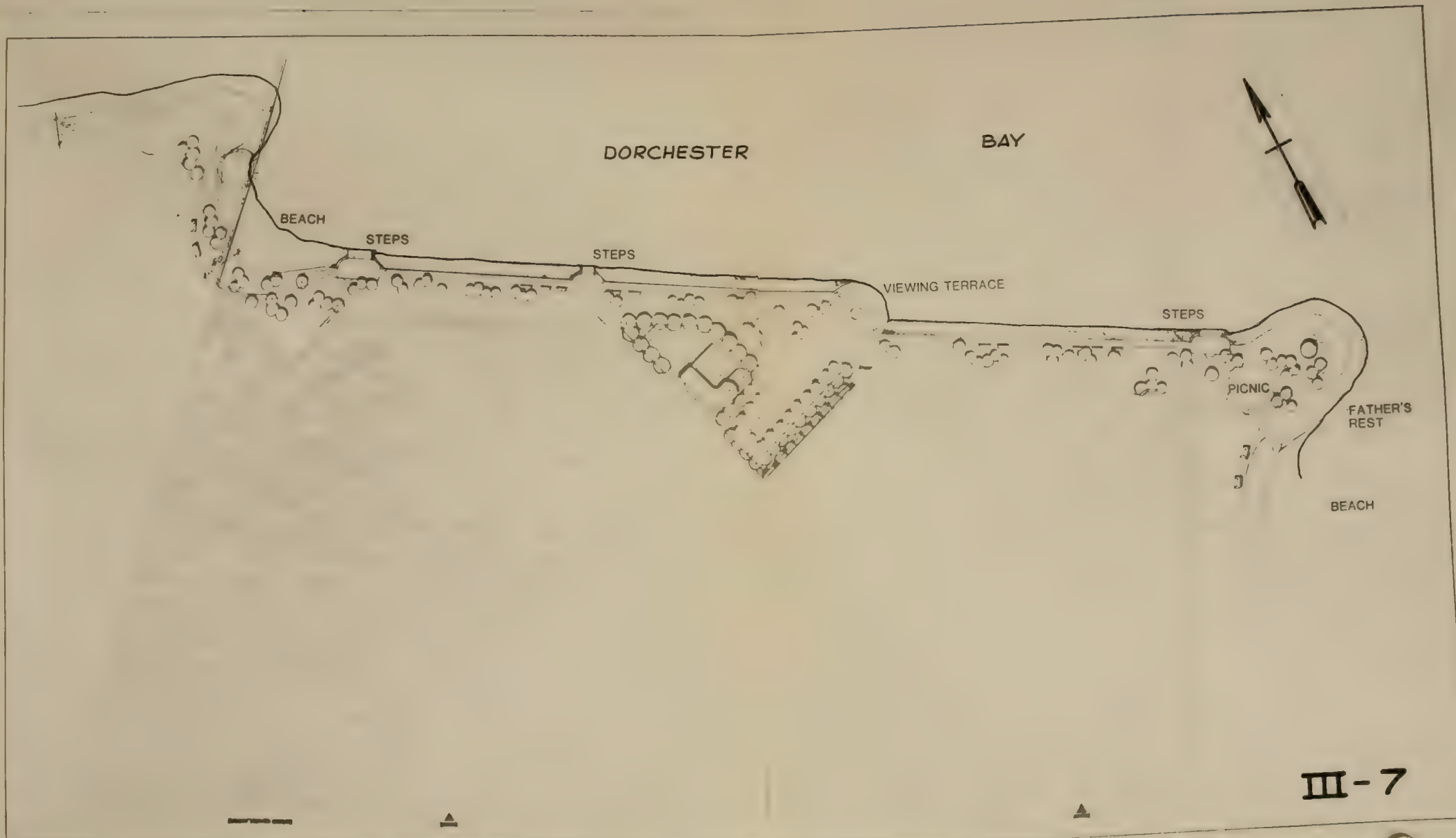
The various types of assigned open space (private yards, shared neighborhood block tot areas, the central "green" and the waterside park) will be defined for specific uses and will be accessible to all residents.

4. Building Types

In contrast to the uniform buildings of the existing Columbia Point housing project, the proposed project will consist of several building types, the detailed design of which were developed based on discussions between the design team, CPCTF, BRA and the BHA. The variety of types offered should induce a diverse population and are discussed below:

a. Townhouses (3-story)

The proposed two- to six-bedroom townhouses (Figure III-8) will be located in several areas of the site. Two types of buildings are being used, each with wood clapboard exteriors, pitched



III-7

■ Townhouses
Height = 3 Stories



roofs, covered wood porches, and projecting bay windows. In addition, each unit will have a separate entry from the street and a private yard. In some cases along the waterfront, there will be shared entrances.

b. Lowrise Rehabilitation (3-story)

Nine existing three-story buildings (Figure III-9) will be completely renovated into studio, one- to five-bedroom flat, duplex and triplex units. According to the design concept for these buildings, the interior townhouse units will be located on the first two or three floors, while the third floor will contain flats accessed by the existing stairwells. Pitched roofs, decks, and patios will be added to the existing structures. These buildings are situated on the western and central portions of the site.

c. Mall Building (5, 6, and 7-story)

The mall buildings (Figure III-10) will be single-loaded corridor buildings with brick exterior located along the "town green" and the ends of the waterfront park area (where the stepped-midrisers had been proposed). The apartments on the first floor will be "through" units with direct outdoor access, while the upper floors will contain flats and some duplex units. The two mall buildings at the waterfront park end of the mall will have structured parking.

d. Midrise Rehabilitation (7-story)

Three existing buildings (Figure III-11) are proposed to be completely renovated using the current footprint. These buildings will be serviced by new elevators. Projecting windows, pitched roofs and new vestibules will be added to change the exterior image of the buildings. Two of these buildings are proposed for the elderly. The unit mix for the midrise rehabs includes one- and two-bedroom flats and duplexes.

e. New Midrise (7-story)

A proposed midrise structure (Figure III-12) will be located on Mount Vernon Street in the southeast corner of the project site. The building will contain one- and two-bedroom units. This building, along with a rehabilitated



New Midr

✻ ✻

**** Height = ories**



* Height =	ories
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



Rehab Me
Height 3 stories



FIGURE III-11
SITE SHELL PLAN

1" = 50'
6-17-88
DOOR, CLANCY AND ASSOCIATES

-  New Lase
-  Height 5 Stories/Mall Building
-  Height 1-2 Stories/Community Space
-  Height 6 Stories/Mall Building
-  Height 7 Stories/Mall Building

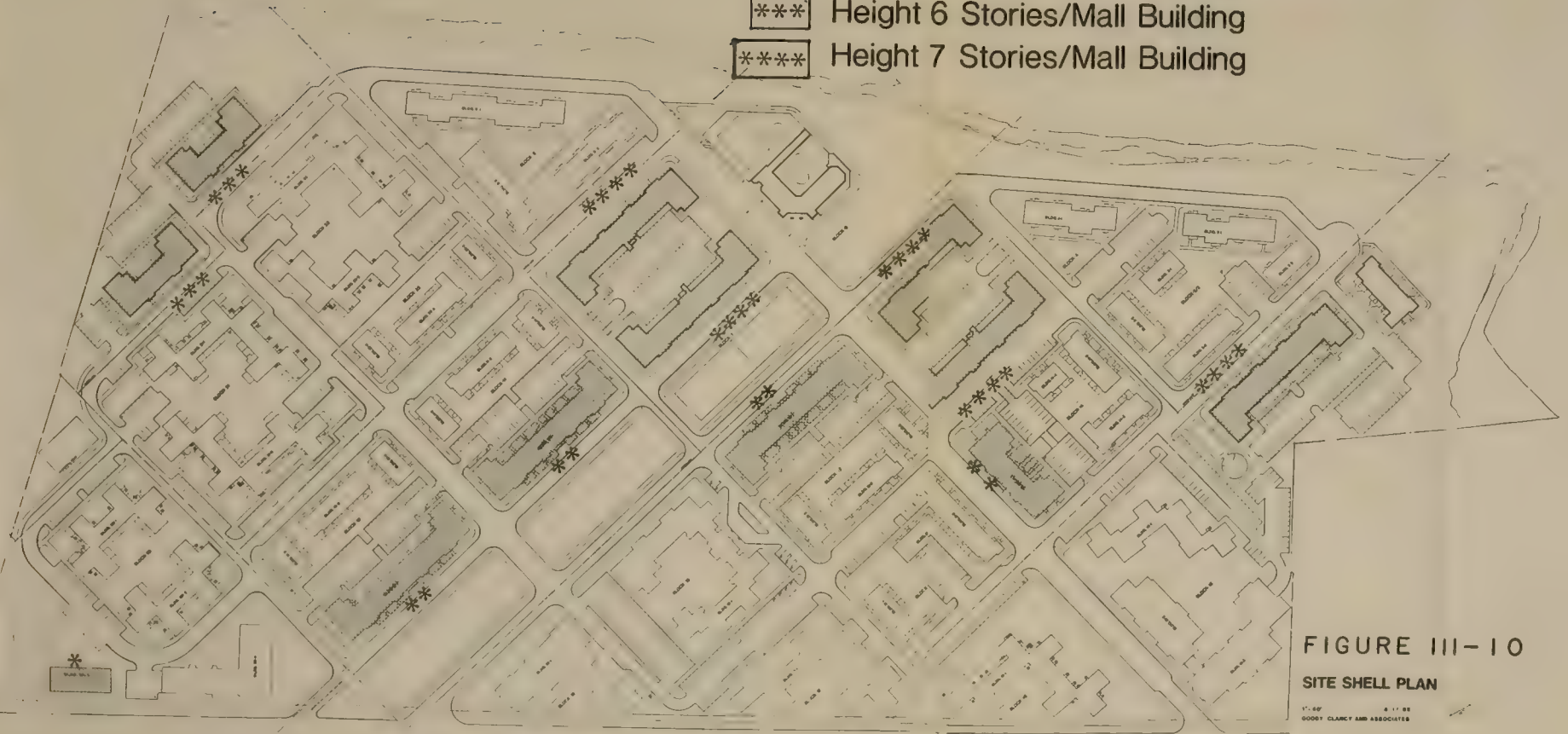


FIGURE III-10
SITE SHELL PLAN

1"=50' 2/1/98
GOODY CLANCY AND ASSOCIATES

- Rehab Lie
- ** Height stories
- * Height stories



FIGURE III-9
SITE SHELL PLAN

1" = 50' 4" = 65'
 GOODY CLARKE AND ASSOCIATES

midrise, will surround a landscaped courtyard and will include an underground parking garage. The proposed midrise will have brick exterior with recessed balconies in some areas.

5. Parking

Parking demand at Harbor Point is based on experience and demand at existing developments and on a projection of parking requirements for the site. According to the City of Boston's zoning requirements, elderly low-income developments require 0.2 parking spaces per unit, while other residential developments require 0.7 spaces per unit. Based upon these requirements, Harbor Point must provide 705 parking spaces for its 1282 units. However, in order to meet the needs of the residents, and for marketing purposes, the proposed site plan will provide approximately 1282 assigned resident parking spaces, or 1.0/unit (see Figure III-13).

The site's density and size, as well as cost, were all taken into consideration in identifying areas in which the parking spaces will be located. In order to avoid large expanses of pavement, parking is provided in numerous outdoor areas as well as within indoor structured facilities.

Of the 1,282 spaces, 348 off-street spaces will be located in 3 garage structures--one in each of the mall buildings located at the end of the mall at the waterfront park, and one under the new mid-rise building on Mt. Vernon Street. In addition, 200 on-street visitor parking spaces will be provided in several designated areas.

The location of this development between the Boston and "suburban" markets points to a parking strategy between the two market types. The provision of nearly one parking space for each unit is greater than required for Boston rental developments, while less than required by suburban communities. The development's access to public transportation is not available for suburban developments in the same magnitude, thus allowing for a balanced approach.

Refinements to the parking plan have been reviewed by all the appropriate parties in order to realize several goals. These goals include provision of adequate parking spaces in locations convenient for the residents of each block, and the design of the parking areas in a manner that minimizes the amount of paved



+48 for Health Center



area on the site. Landscaped "islands" to break up paved areas of parking will be used where feasible.

If future demands for parking are greater than the supply, several options are available. On-street resident parking could be allowed under a sticker system in designated areas in addition to areas currently planned for visitors. A pricing system which would charge for additional cars per unit also can be effectively used to control demand for parking. Other facilities on the Peninsula which have garage parking also could be approached for remote parking for residents. Over 7,000 off-street parking spaces exist for the businesses and institutions on the Peninsula and are used primarily during business hours. This would make a shared use of the facilities possible and convenient, especially if a Peninsula-wide public transportation loop system could be implemented.

6. Project Amenities

Harbor Point will offer numerous amenities to residents including wall-to-wall carpeting, laundry facilities, closed circuit TV, air conditioning, and dishwashers. Some units will feature balconies while others will have patios. Two swimming pools, tennis courts, and a clubhouse also are part of the site amenities package. The amenities offered will be the same for each unit regardless of the income level of the residents, and will be included in the rent.

7. Landscaping

Landscaping for the site is designed for practicality as well as appearance. Groves of deciduous and evergreen trees, gentle berms and massed shrubs will serve as wind breaks on this exposed site.

Deciduous trees will provide shade from summer sun and shrubbery buffer zones will provide privacy by separating public and private areas. Sycamores, maples, chinese elms, flowering crabapples, lilac trees, blueberry and rugosa rose will supply salt resistant, hardy and attractive planting. Landscaping treatments to separate the public and private environs along the waterfront will include berming, planting and fencing. Landscaping also will be used to control the effects of sun and wind on the site.

8. Context

Mt. Vernon Street is scheduled to be reconstructed and

connected to the U-Mass Roadway by the BRA using UDAG funds. In addition, a future extension of Mt. Vernon Street to the rest of the Peninsula is under consideration by the BRA, although not in design as of yet. Such an extension would allow improved access for Harbor Point residents to the neighboring facilities and the City of Boston.

As adjacent parcels of land are developed, the recreational paths within Harbor Point may be extended. The park system along the waterfront is planned to encircle the entire Peninsula. A future path could lead directly to the Calf Pasture Pumping Station while a pedestrian walkway could link Harbor Point to the proposed neighborhood shopping center on the Bayside Expo parcel.

The stone edge of the rip-rapped shoreline along the housing property has eroded considerably due to its poor construction, numerous storms, and lack of maintenance. Alternatives for repairing/replacing the rip-rap will be addressed as part of the public waterfront development to be funded by the MDC (Figure III-14).

E. PROJECT OBJECTIVES AND BENEFITS

The redevelopment of Columbia Point is a combined effort of numerous public and private agencies and entities to accomplish many objectives. The following is a summary of these objectives and benefits which are discussed in more detail in other sections of this report:

Physical

- o Eliminate a blighted, partially abandoned property.
- o Expand supply of rental housing in Boston by adding 882 moderate income and market-rate units.
- o Provide 400 low-income units which meet current building code requirements in a variety of building types.
- o Improve approximately one-half mile of coastal waterfront.
- o Provide and maintain a link in the public park/walkway along Dorchester Bay.

Economic



FIGURE III-14
Columbia Point Shoreline

- o Share profits of development with residents through the CPCTF's role as a general partner.
- o Provide social services on-site as part of the development's operating budget.
- o Increase property tax revenue to the City of Boston.
- o Increase development potential and value of adjacent property on the Peninsula by removing the blight that has precluded development in the past.
- o Provide security, trash removal, and snow removal within development's operating budget.
- o Return the land and buildings to public ownership after 99 years.
- o Provide employment opportunities and training for low-income Columbia Point residents through development, construction and management jobs.

Social

- o Provide 400 low-income units.
- o Include residents as joint owners in the new development.
- o Create a mixed-income and mixed-racial community in Boston.
- o Guarantee long-term public access along the waterfront.
- o Address social problems of families currently living at Columbia Point.
- o Reduce crime and vandalism at Columbia Point.
- o Provide and maintain recreation facilities for the new residential neighborhood at Columbia Point.

F. PROJECT PHASING AND SCHEDULE

Construction of the project is scheduled to begin in the late winter of 1985 with the demolition of buildings. The redevelopment of the project site is anticipated to take four years.

For planning and marketing purposes, the proposed project has been divided into three sections. Section I covers the northeastern part of the site, immediately west of the Calf

Pasture Pumping Station. Section II will focus on the northwestern portion and Section III is located on the southwestern portion of the site (see Figure III-15). Construction will start with Section I and progress southwesterly to Section III.

The proposed schedule calls for the first buildings to be ready for occupancy within 16 to 19 months after construction begins. In order to create a marketing impact and to provide services to the first few residents, the Clubhouse and its facilities along the waterfront are to be completed when rent-up begins. The marketing effort will be based in the mall building on the eastern edge of the mall. Once the first buildings are complete, additional units will be ready for occupancy on a continuing basis until the end of the construction period.

G. PROJECT FUNDING AND PERMITS

1. Funding

The total cost of the development is estimated to be approximately \$170 Million. A summary of the State and Federal funding sources is as follows:

- a. Section 8 New Construction/Substantial Rehabilitation - a federal rental assistance program which is project based and pays the difference between tenant payment (30% of income) and market rents in the area. These funds are to be transferred from other projects in Boston. Funding for 350 low income units has been secured pending HUD's final approval.
- b. Urban Development Action Grants (UDAG) - a federal program to assist in local economic development and revitalization activities by reducing the cost of such activities through loans or grants. A \$12 million UDAG Grant was received in January, 1985.
- c. Urban Initiatives - a federal public housing modernization program. HUD has released funds to cover the cost of making initial improvements during the interim management phase.
- d. Section 707 Rental Assistance - A state rental assistance program for low-income tenants. Funds have been appropriated to subsidize 50 units.
- e. FHA Mortgage Insurance or Co-insurance - federal programs designed to stimulate housing production

The diagram is a site shell plan of the University of Illinois at Chicago, showing three sections: Section I, Section II, and Section III. The plan includes building footprints, parking lots, and a river. A scale bar indicates 1 inch equals 100 feet.

SECTION I

SECTION II

SECTION III

SITE SHELL PLAN

1" = 100'

0 50 100

FIGURE III.15

The diagram is a site shell plan of the University of Illinois at Chicago, showing three sections: Section I, Section II, and Section III. The plan includes building footprints, parking lots, and a river. A scale bar indicates 1 inch equals 100 feet.

SECTION I

SECTION II

SECTION III

SITE SHELL PLAN

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FIGURE III.15

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SECTION I

SECTION II

SECTION III

SITE SHELL PLAN

1" = 100'

0 50 100

FIGURE III.15

1 007 9 55
000000 01 0000 0 0000 0 0000 0 0000

1 007 9 55
000000 01 0000 0 0000 0 0000 0 0000

FIGURE III-15

by insuring the construction and permanent mortgage. Authorized by the National Housing Act of 1934, the co-insurance program is a variation of the FHA insurance where another lending institution shares the risk with FHA. The MHFA is proposed to act as co-insurer for the Harbor Point Project.

- f. Massachusetts Housing Finance Agency (MHFA) - tax-exempt bond financing. The MHFA has committed \$95,829,200 for the construction and permanent bond financing of the project. A firm commitment application was submitted to MHFA on September 24, 1985 with the new project pro forma which requires a mortgage increase.
- g. SHARP - a State program providing funds needed to make rental housing projects feasible. The developers submitted an application on September 24, 1985.
- h. Metropolitan District Commission (MDC) - will operate and own the new waterfront park. Appropriate levels of funding is being sought from the Massachusetts Legislature.

2. Project Permits

At the present time, the following State and Federal permits are anticipated to be required for Harbor Point:

AGENCY

TYPE OF PERMIT AND STATUS

Local

Boston Conservation Comm.

Order of Conditions, pursuant to Massachusetts Wetlands Protection Act, M.G.L. Ch. 131, Sec. 40 (310 CMR 10.00)

Boston Redev. Authority/ Zoning Board of Appeals

Planned Development Area (PDA) status for the original site plan was granted by the BRA. A map ammendment on the PDA designation was voted by the Zoning Commission. status has been approved by the ZBA. The developer will return to these regulatory boards for ammendments due to the design changes.

Public Improvements Comm.

The PIC voted to abandon the five public streets located within the Columbia Point Housing Project.

County

Registry of Deeds

The developer has registered the ten new streets at Harbor Point with the Registrar.

State

Environmental Affairs

- o Div. of Wetlands/ Waterways Regulation

Review and approval of projects in or adjacent to waterbodies or wetlands.

Chapter 91 (Waterways) license and dredging permit, pursuant to M.G.L. Chapter 91, Sections 2, 52-55 and 310 CMR 9.00.

- o Div. of Water Pollution Control

Water Quality Certification pursuant to Massachusetts Clean Waters Act (314 Clean Water Act of 1977 (33 USC 1344)).

- o Div. of Air Quality Control

State Implementation Plan consistency determination; approval of plans for fossil fuel utilization facilities, pursuant to MGL Chapter 111, Section 31C.

- o Coastal Zone Management

Cert. of Consistency with Plans, Chapter 91 Licensing Process

Metropolitan Distr. Comm.

Sewer Connection Permits

Federal

U.S. Army Corps of Engineers

Section 10 Permit

Federal Aviation Administration

FAA Part 77 Permit

The project proponent is in the process of obtaining all necessary permits in anticipation of a late winter 1985 construction start.

PART IV

ALTERNATIVES TO THE PROJECT

IV. ALTERNATIVES TO THE PROJECT

A. INTRODUCTION

This section discusses alternate uses of the project site and alternatives to the project site. The project site and preferred development program have been described in detail in Part III.

It has been estimated that as many as 200 planning studies for Columbia Point have been produced over the last fifteen years (see Appendix A). Virtually every possible alternative to the existing land use on Columbia Point has been considered during this time. The redevelopment proposal described in this report has evolved with considerable support from the federal, state and local governments, as well as tenants groups and others and without evidence of serious opposition.

A preliminary discussion of the problems which exist at Columbia Point and which the preferred alternative addresses follows:

1. Site Design

The physical design of the Columbia Point public housing project has contributed to its failure in several ways. In spite of its dramatic location at the water's edge and ten minutes from downtown Boston, the project takes no advantage of its location. A last minute design decision by HUD and the BHA just prior to the beginning of construction of the existing project resulted in the revision of the original site plan for the project so that all 30 buildings were sited on only 37 of the original 50+ acre site. This resulted in a per acre density which, while perhaps workable for market/luxury apartments in a downtown location, has proven to be unworkable for a low-income population and is completely inappropriate for a waterfront location.

The current arrangement of the buildings provides only one or two view corridors through the project and none that allows views of the water, the harbor islands, or the downtown. There are no views of the harbor from any point on Mount Vernon Street in front of the project. Only a small percentage of dwelling units have views of the water. Since the project turns in on itself, most units have views of only other buildings in close proximity.

The presence of elevator buildings in family public housing projects has long been acknowledged as a

problem since elevators are generally extremely unsafe for children. In addition, elevators are often the subject of extensive vandalism which renders them inoperative or makes them both expensive to maintain and undesirable to use. Moreover, these seven-story buildings in their present configuration also cast shadows over most of the open space between the buildings, making them cold and uninviting much of the year.

Finally, the physical appearance of the project itself has become a stigmatizing symbol of failure. Continued use of the existing buildings as public housing would not only run contrary to all presently-accepted design principles for urban neighborhoods and public housing, but would, as a result, virtually guarantee that tenants in the project would continue to feel alienated and isolated.

2. Site Location

Although situated in a beautiful and convenient location, the Columbia Point project will always be separated to some extent from other Boston neighborhoods by the highways and railway lines which connect Boston to its southern neighborhoods and neighboring communities. Also, the site will remain surrounded for the foreseeable future by institutions which have little relevance to low-income people. Even if the BHA reclaimed the land it had transferred to the City, thus reducing the per-acre density by locating public housing on both parcels, the low-income community would inevitably continue to feel a sense of isolation. This feeling results from the fact that (1) a low-income community in an out-of-the-way location has received very little in the way of City services (police protection, trash collection, road and sewer maintenance, and snow removal), (2) there are no retail services convenient to the site, (3) the neighboring institutions are not only by and large irrelevant to the low-income population, but also fearful of it, and (4) given the above, the tenants feel shunted aside and forgotten.

The recreation of a 1500-unit public housing project on this site would not likely change any of the above. City services probably would not improve. No retail services would be attracted to the location. The sociological problems which currently exist (crime, vandalism, etc.) as a result of the project's isolation, management problems and relations with neighboring institutions would not improve. Therefore,

it is reasonable to assume that in all likelihood the tenant population would continue to feel isolated and alienated and that the resultant social problems would continue.

3. Financial

The cost to the federal government of rehabilitating the 1504 existing units at Columbia Point would probably range between \$85 million and \$100 million, or \$56,500 to \$66,500 per unit. In addition, lost opportunity cost is estimated to consist of the following payments promised by the proposed redeveloper: 1) repayment of \$12 million in UDAG funds plus interest; 2) repayment of \$8.7 million in Urban Initiatives funds plus interest; 3) payments to the Columbia Point Community Task Force in support of their non-profit activities; 4) contribution of a percentage of ongoing cash flow and long term residual value with the public agencies; 5) payment of at least \$1 million per annum to the City for property taxes; and 6) the possibility of the reversion of an improved site to the public at some point in the future.

B. BACKGROUND OF THE CURRENT PROPOSAL

In 1978, a joint planning effort for the Columbia Point housing project began which involved the Boston Redevelopment Authority (BRA), Boston Housing Authority (BHA), and the Columbia Point Community Task Force, Inc. (CPCTF). Early discussions resulted in a Resident Rehousing Agreement, signed by all parties, which guarantees all tenants then residing at Columbia Point the right to be rehoused in the redeveloped housing on the site. It also contains guarantees regarding relocation benefits and terms (See Appendix B).

Discussion then focused on the production of a mutually agreeable developer's kit (See Appendix C) which was jointly issued by the BHA, BRA, and CPCTF on September 12, 1982. On February 22, 1983, three complete proposals for the redevelopment of the project site were received. Review of these proposals by all the parties, and by HUD, continued until October of 1983, at which time the BHA and the BRA granted tentative designation (See Appendix D) to a development team which consists of the two finalist teams. During the summer of 1983, BHA, BRA, CPCTF, and a representative of the so-called Perez class (the class of plaintiffs in the suit, Perez et al vs. Boston Housing Authority, filed to resolve maintenance and management issues) negotiated a Memorandum of Understanding which expands upon the Resident Rehousing Agreement and provides

for creation of a Public Benefit Fund, to be funded by the developer for the purpose of guaranteeing continued availability of low income units at Columbia Point and benefitting low-income housing elsewhere in the City (See Appendix E).

In summary, prior to 1978 all possible alternatives to the proposed redevelopment were considered. Since 1978, considerable thought by all parties directly involved has been given to the parameters for redevelopment at Columbia Point and consensus has been achieved at each step. The CPCTF has been fully involved in the process and has acted as a planning partner equal with the public agencies. Thus, the proposed alternative has been selected as a result of substantial study and a consensus among all parties involved in the funding and implementation of the project.

C. THE PREFERRED ALTERNATIVE

The proposed redevelopment scheme for Columbia Point is described in detail elsewhere in this report. Those sections should be referred to for the particulars of the plan.

In general, the proposed plan calls for the transfer of City owned land to the BHA following appropriate governmental reviews, and the demolition of 17 of the 30 buildings currently located at the Columbia Point Housing Project. The remaining 13 low and mid-rise buildings will be completely rehabilitated so that they will be virtually unrecognizable as the buildings they are today. The rehabilitated buildings will contain studio to five bedroom units. 37 new buildings will be constructed on both the City and the BHA land. They will consist of townhouses with two to six bedroom units, eleven mall buildings of five to seven stories with one to six bedroom units and a new mid-rise building with one and two bedroom units. The development has an overall total of 1282 units, 366 in rehabilitated buildings and 916 in new buildings.

Amenities to be included in the project include a public waterfront park stretching the full length of the site and, eventually, from Mother's Rest to the JFK Library. In addition, a clubhouse building, tennis courts, two swimming pools, and green spaces will be developed for use by the residents.

The plan requires the developer to provide a minimum of 400 units of low-income housing for the life of the project, which is currently assumed to be the duration of the contemplated 99-year lease. These 400 units must be identical to all other units in the project and must be

dispersed geographically over the site. Tenants who currently reside at Columbia Point are guaranteed the right to be rehoused in the newly rebuilt project, but to the extent possible the developer must use best efforts at housing a low-income population which is generally representative of the BHA's income and racial mix.

Finally, the plan calls for the creation of at least 50 full-time jobs to be made available to current residents of Columbia Point. Some of these jobs will be in construction trades, others in management of the project and elsewhere. This is an important part of the plan to the extent that it is expected to substantially improve the quality of life for these people and ameliorate the sociological problems existent among the low-income population currently residing in the project.

D. REHABILITATION FOR CONTINUED PUBLIC HOUSING ALTERNATIVE

This alternative would involve the total rehabilitation of the existing Columbia Point public housing project. The rehabilitation might include relandscaping of the site and repairs and rehabilitation of the existing recreation facilities and roads. Current tenants would remain and approximately 1,100 new public housing tenants would be housed at the site upon completion of the rehabilitation.

The positive impacts of this alternative on the physical environment, in terms of the creation of a more attractive and viable community, would be unlikely to be as great as those of the proposed redevelopment. This is assumed because the amenities which are proposed to be included in the redevelopment would probably not be built under this alternative due to the lack of private funds. Other physical impacts, such as sewage, run-off, traffic generation, air pollution, and others, would probably be approximately the same as the proposed redevelopment scheme, assuming the number of units of housing is comparable.

The benefits of this alternative are that: 1) 1,100 units of public housing would be retained, allowing the BHA to reduce its waiting list by that number; 2) the opportunity for the BHA to create a better racial mix would be achieved; and, 3) the site would remain in the exclusive control of the public.

The problems with this alternative are that: 1) it does not mitigate the problems created by the site's physical isolation; 2) the other sociological benefits of creating a mixed-income community would be lost; 3) the City would

lose tax and other revenues, linkage payments, and repayments of public subsidy; 4) management and maintenance problems must be addressed so that the project does not deteriorate further; and, 5) additional years of planning would be required.

The benefits of having an additional 1,100 units of public housing available to low-income people in the City of Boston are clear. However, the proposed alternative has been developed with the cooperation of the BHA and the tenants at Columbia Point to address the problems described above. The benefits of the proposed development far outweigh the benefits of the additional units of public housing. In addition to dealing with Columbia Point's specific problems, the new development will generate payments to the City (repayment of UDAG, Urban Initiatives, etc.) which can be dedicated to the preservation and production of low-income housing elsewhere in the City.

Proponents of the proposed alternative also argue that the 400 low-income units which will be maintained at Columbia Point for the duration of the developer's lease with the BHA and the City (99 years) will be better maintained and of higher quality than would be the case under a public rehabilitation scheme. Proponents also point out that the development will provide direct monetary support, which would otherwise not exist, for the tenant's organization and for social services on the site.

E. NON-RESIDENTIAL USE ALTERNATIVE

Commercial or industrial development of the project site would most likely result in the building of office or light industrial facilities. The advantages of such an alternative include: 1) further enhancement of Boston's office market; 2) the payment to the City of linkage funds which would probably be greater than those which will be generated by the proposed redevelopment; 3) restoration of the site to the City's tax rolls; and, 4) development which is compatible with neighboring land uses on Columbia Point.

One of the problems with the commercial/industrial alternative is the fact that the Resident Rehousing Agreement and the 1983 Memorandum of Understanding among the Boston Housing Authority, Boston Redevelopment Authority and Columbia Point Community Task Force, Inc., as assented to by both HUD in the first instance and the Perez class in the second, effectively precludes the use of this site for commercial or industrial facilities. These agreements require the rehousing at Columbia Point of tenants who currently reside at Columbia Point on-site.

Even in the absence of such agreements, however, it has generally been agreed among interested parties for years that mixed-income housing is the best use of the site. This has become more true in recent years as Boston's housing vacancy rate has dropped to 1-2% and as commercial and industrial development in Boston has begun to concentrate elsewhere. Also, continued use of this site for housing is specifically identified in the City's Housing Assistance Plan and is not otherwise inconsistent with the City's land use or housing policies.

During the last decade, in the wake of Boston' decline as a commercial port, there has been increasing agreement on the need for maximum public access to the water and on the appropriateness of the use of the waterfront for recreational and residential purposes. Evidence of this may be seen all along the Boston shoreline. With the exception of Logan airport, commercial activities which require deep water docking facilities (MassPort), and the fishing industry, almost all other commercial or industrial activity has left the waterfront. Specifically, there has not been any expression of interest in this site as a commercial or industrial site.

Furthermore, recreational use of the waterfront has increased tremendously as the MDC has developed and improved its waterfront park system and as the City and the BRA have created public access wherever possible around the inner harbor. Residential use has also increased dramatically as the market has determined, with the support of public policy makers, that residential is the best and highest use of such property. Examples include Harbor Towers, Charlestown Navy Yard, Lewis Wharf, Rows-Foster Wharf, Fort Point Channel, the Fan Piers, and the San Marcos development.

The BRA recently issued a document called "Harborpark, A Framework for Planning Discussion". While it in no way purports to be a definitive plan, it reflects the cumulative experience and community input received by the BRA over the years. For the Dorchester Bay Beaches, it states:

"The general goals for this area are retaining and enhancing the open space, parks, and beaches along the Harbor, promoting residential uses, and protecting the residential areas from industrial intrusion and impacts."

It should be noted that without extensive dredging this site is unusable for water-dependent industrial or commercial use, the depth of the harbor off-shore from the

project site being only 1 to 2 feet at low tide.

F. THE NO-BUILD ALTERNATIVE

A no-build scenario has long been recognized as an unacceptable option at Columbia Point. The failure by the BHA or its agents to rehabilitate or replace housing units on the project site would only result in further deterioration of the property, reduction of the tenant population, continued blight, increased social problems, and prolonged absence of the property from City tax rolls. The probable result would be that the project would be gradually emptied over the next five to ten years and, ultimately, closed, leaving the BHA and the City with essentially the same problem it now faces.

Rehabilitation of currently occupied units and demolition of unoccupied units is not considered viable, since this approach would not solve the essential problem of the isolation of the low-income population from the City's neighborhoods and services. Only one known study to date has recommended that this site continue to be used exclusively for low-income housing. This alternative has been rejected because it is assumed that the isolation of the site, combined with inadequate management and maintenance, has resulted in the deterioration of the project in the past and would lead to it again in the future.

The proposed redevelopment will result in environmental benefits which would not be realized in a no-build alternative. They include: 1) creation of a mixed-income community on the site, which is consistent with City policies on housing; 2) creation of a viable waterfront park, which might not otherwise occur; 3) creation of other recreational amenities, which might not otherwise be built; 4) fiscal benefits to the City; and, 5) encouragement of additional development opportunities on the peninsula.

G. ALTERNATIVE SITES

There are few alternative sites in Boston large enough to accomodate the proposed project. They might include the Boston State College site or the Fort Point Channel Piers owned by Anthony Athanas. The reasons for not pursuing the proposed project on any other site are common to all alternative sites. They include: 1) the loss of federal Urban Initiatives funds which are dedicated to Columbia Point; 2) the lack of Section 8 subsidy for any other site; 3) the fact that the project cannot support land costs in addition to its other premium costs; 4) doubt as to whether this mixed-income community could be marketed on a site any

less attractive than the Columbia Point site; 5) the lack of demonstrated private developer interest; and, 6) the lack of demonstrated political and institutional support.

The analysis of alternative sites is of limited utility for additional reasons, including: (1) the purpose of this proposal is to eliminate the blight and symbol of failure which Columbia Point is today; (2) the plan is consistent with the City's housing and waterfront policies; and (3) the Resident Rehousing Agreement and 1983 Memorandum of Understanding do not contemplate other sites. For these and other reasons, other sites for this project have not been considered.

In conclusion, there is tremendous institutional and political support for this project which reflects long-standing commitments from people and their institutions to do something positive and dramatic about the dangerous and undesirable conditions at Columbia Point, both for the residents there and the City generally. In addition to the pragmatic concerns of crime and loss of property tax revenue, the City sees the redevelopment of this project as an opportunity to make a positive and much needed statement about race relations and commitment to the poor.

Given the relocation, social services, and employment training requirements of this project and its extraordinary marketing requirements, there is serious doubt as to whether a developer would undertake this project if required to build it on another site. Advantages of using this site for this development program include: (a) the availability of up to \$9.8 million in Urban Initiatives Funds; (b) the ability of the BHA to be kept informed of development operations through its lease with the developer; (c) the availability of the site to the developer at little or no cost, particularly during the early, financially critical years of the development; and, (d) the waterfront location which is key to the developer being able to charge market rents adequate to support the development cost.

Finally, by relocating this project to another site the City would breach its agreements with the CPCTF regarding redevelopment and relocation, and would probably displace 350-375 families, most of whom have lived at Columbia Point for decades. The positive environmental impacts, such as the creation of a mixed-income community, the elimination of blight, the resultant sociological benefits, the creation of a waterfront park and recreational facilities, the addition of 880 units of housing to Boston's stock, and the fiscal benefits to the City are significant. Relocating

this development to another site would mean the loss of most, if not all, of these benefits.

PART V

EXISTING ENVIRONMENTAL CONDITIONS

V. EXISTING ENVIRONMENTAL CONDITIONS (AFFECTED ENVIRONMENT)

A. HISTORIC SETTING

The current Columbia Point housing development is situated on filled land formerly known as "calf pasture". A 1952 BHA report on this parcel of land describes the area as follows:

"From time immemorial there has been a large area of land south and west of Columbia Circle in Dorchester known as the Cow (or Calf) Pasture. This area extends from the waterfront to the right-of-way of the Old Colony Division of the New Haven railroad. It is bisected by two roads, (1) Mt. Vernon Street, or the Mile Road, extending from Columbia Circle to the sewage pumping station of the City of Boston, and (2) by the Old Colony Parkway, the main traffic artery to the South Shore. The land was originally salt water marsh interspersed with creeks. Over the years much new land has been made by the filling of the area through use as City dumps."

No significant prehistoric or historic activities are known to have occurred at this locale. Discussions held with Barbara Luedke, Archaeologist at the University of Massachusetts Harbor Campus Anthropology Department, corroborate the absence of archaeological sites. Ms. Luedke noted that there was 30 feet of fill at the Harbor Campus site, and no archaeological finds were discovered.

Of minimal historic interest is the fact that at one time Camp McKay was located on the northeast corner of the site adjoining Columbia Park, an area of approximately 22 acres. This camp was built in 1943 to house approximately 2500 men and officers. It consisted of a number of barracks buildings, warehouses, etc., all of temporary wood construction. The camp was also provided with roads and utilities such as water, sewers and electric service, also designed for temporary use. According to a March 2, 1946 BHA report, this was the only activity on the Peninsula except for a few commercial buildings on Mt. Vernon Street.

The Boston Water and Sewer Commission's Calf Pasture Pumping Station is located at the southerly end of Mt. Vernon Street. Built in 1883, this station is now used only as a relief mechanism during heavy precipitation. The pumping station building is considered eligible for inclusion on the National Register of Historic Places. It is the only portion of the parcel that is of any significant historical value.

B. PROJECT AREA PROFILE

1. Land Use and Development

The existing Columbia Point public housing project is located on the Columbia Point Peninsula, a 350-acre peninsula located only three miles from downtown Boston. Surrounded on three sides by water, the Peninsula's western boundary is defined by the Southeast Expressway and Morrissey Boulevard. These physical characteristics have isolated it from the residential neighborhoods of Boston.

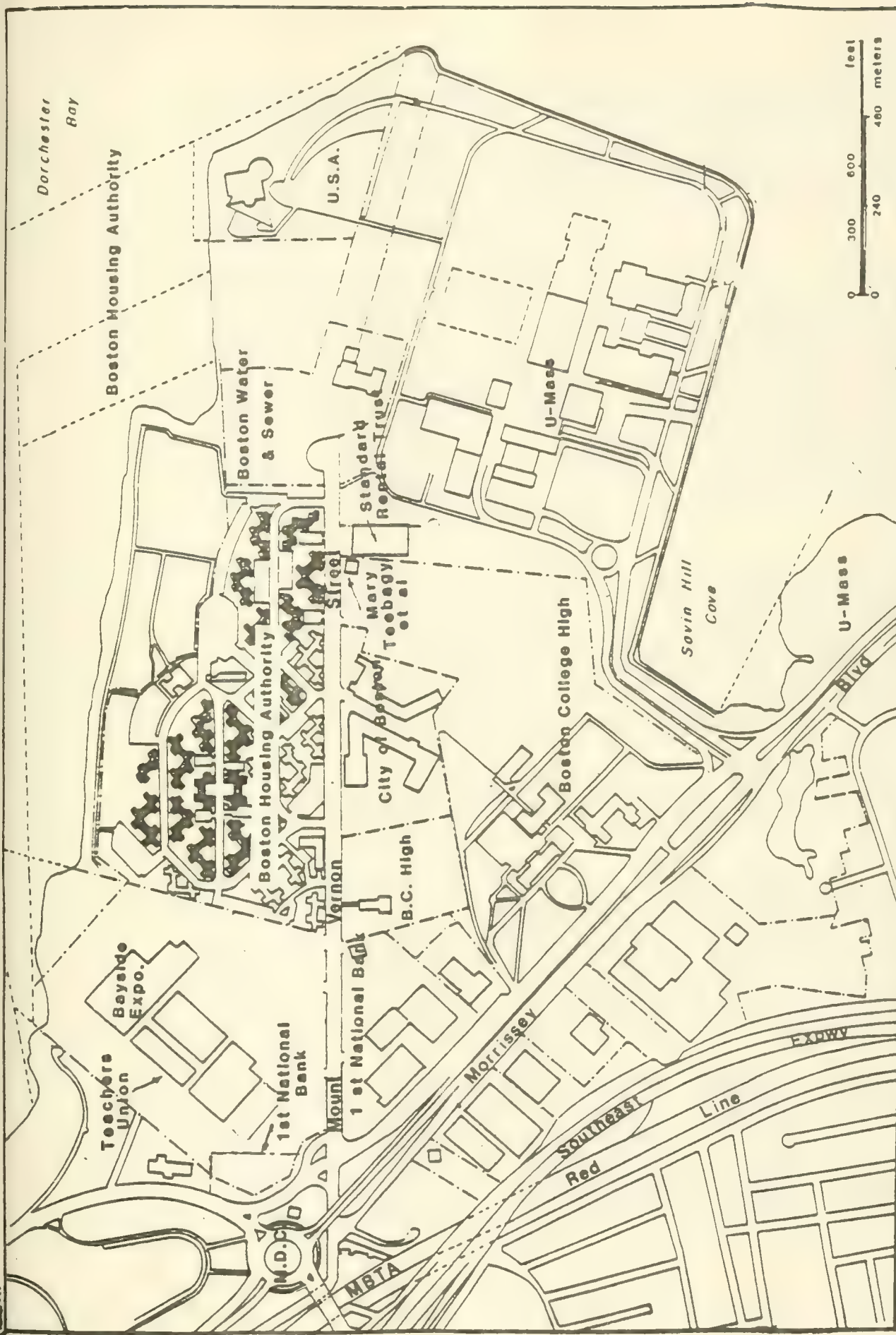
In addition to the public housing project the land uses of the Peninsula are predominantly institutional or business (Figure V-1). Along Morrissey Boulevard are located the Boston Globe, Hubmail, Channel 56, Bank of Boston Computer Operations Center and Boston College High School. Employing approximately 4500 people, these institutions and businesses are not oriented toward residents of the surrounding area but are located on the Peninsula primarily because of accessibility to downtown Boston and the Expressway.

The University of Massachusetts-Boston Harbor Campus is located at the southeastern end of the Peninsula. Of the over 103 acres owned by the University, only sixty acres, including 1.6 million square feet of building space and 1,600 parking spaces are currently used. The University offers a variety of day and evening classes in full- and part-time programs. With average student attendance of 11,496 per day and a full time staff of over 500, the University future plans for the construction of a third college and an Arts & Science Building.

Despite its isolated location, the University's recreational facilities are well used by residents of the neighboring communities. Approximately 3,500 people are members of the recreational facilities which include gyms, pools, exercise rooms and tennis courts.

The other facilities on the southeastern end of the Peninsula are the John F. Kennedy Presidential Library and the State Archives Building. Designed by I. M. Pei, the Library is located on 9.5 acres on the tip of the Peninsula and presents a dramatic structure as viewed from the land and the water. The building was opened in 1979 and is operated on a seven-day-a-week schedule attracting approximately 700,000 visitors a year.

In 1982, construction began on the Massachusetts State



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PARCEL OWNERSHIP

FIGURE V-1

Records Center and Archives Museum on 4.5 acres between the Library and U Mass. Scheduled to open in 1985, the building will contain 102,000 square feet of storage for state records, 24,000 square feet of archives storage, a conservation laboratory and a 5,000 square foot archives museum. The building will also house a reading room for persons conducting historical or genealogical research.

The most recent development on the Peninsula has been the renovation of the nearly vacant Bayside Mall into the largest trade center in New England. Opened in the spring of 1983, Bayside contains 166,000 square feet of exhibition space, 33,000 square feet for the offices of the Boston Teachers' Union, and 69,300 square feet of showroom space for the garment industry. In its first year of operations, over 1.5 million people attended trade and gate shows at the Exposition Center. A new 165,000 square foot garment building was opened in 1985, and future plans include additional office, retail and parking facilities.

Finally, several other institutional uses are located along the south side of Mt. Vernon Street, including St. Christopher's Church and Rectory. The Dever Elementary School and the John W. McCormack Middle School, serving children from Columbia Point, South Boston, and Dorchester are located on Mt. Vernon Street. Approximately 1230 children, support staff and faculty are present in the schools on any given day.

A partially-abandoned retail building and the office and storage facility of Standard Uniform Company comprise the remainder of the land uses along the south side of Mt. Vernon Street.

The Boston Water and Sewer Commission owns the land containing the Calf Pasture Pumping Station. The facility, which is located at the end of Mt. Vernon Street, is used as an overflow pumping facility during heavy precipitation. The building was built in 1883 and although a specific plan has not been prepared, it is proposed to be renovated for general community use when it is no longer needed as a pumping facility.

All of the upland parcels (approximately 51 acres) now considered to be the development site were originally acquired by the U. S. Department of Housing and Urban Development (HUD) for the purpose of building the existing 1504 units of public housing. On May 14, 1970, the Boston Housing Authority transferred 4 parcels of land to the City of Boston for the rehabilitation of

the Columbia Point project's recreation facilities and the construction of a new recreation building. On the same date, the Regional Office of HUD authorized the release of this land from their trust agreement with the BHA.

2. Demographic Profile

In 1962, the Columbia Point Housing Project had a population of 6,100 residents, and was fairly representative of Boston's public housing tenancy. Between 1962 and July, 1985 the population declined to some 320 families with a total population of 1263 people. This includes 61 subset family households; i.e., families within a family. According to a survey conducted by Housing Opportunities Unlimited, the majority of families are either Black (78%) or Hispanic (17%) with the remaining residents either White (3%) or other minorities (2%). The average family has lived at Columbia Point for 16.2 years.

When CMJ Management took over management of the project from the BHA on October 1, 1984, new families were no longer admitted to the development. In the first six months after CMJ Management assumed responsibility for the operation of the project, a complete survey of the existing residents was completed. Although the Columbia Point population changes weekly, no new families would need to be oriented to the Columbia Point Resident Service Plan or to fill out survey or relocation data. The population may decrease because of natural attrition, eviction or preference by a family to move off site during construction. Although one of the premises listed in the introduction of relocation clearly states the developer's desire to have all current residents remain on-site throughout the redevelopment, they recognize that some families may prefer to leave because of health or other reasons. If the decision is made to leave, arrangements will be made, on a case-by-case basis, to help them relocate outside of the community.

In 1979, the median family income was \$9,810, substantially below the City-wide median of \$16,062, and for unrelated individuals, \$4,280. Census data also indicated that 31.6% of the families (all headed by females) had incomes below the poverty level, as did 33.6% of the unrelated individuals. Nearly 85% of the households depended on welfare for at least part of their income, 23% received social security benefits, and 44% received some wages or other earnings in 1979. (A 1975 State survey of Columbia Point found that the

average family income of welfare families was \$2,127 per year, and only \$1,626 annually for families securing social security benefits. More recent figures indicated that 75% of the families depended on welfare as a sole income source, with an average income of approximately \$3,450 annually.)

In 1975, 36% of all Columbia Point youth and 20% of the adults were unemployed. The 1980 Census, however, found that 95.7% of all persons in the labor force (those aged 16 years and over) were employed and only 4.3% unemployed; however, 64.6% of those aged 16 years and older were categorized as "Not in Labor Force", which includes not only retirees and housewives but, more importantly, "discouraged persons" who have given up looking for a job.

3. Transportation Facilities

3.1 Street and Highway Network

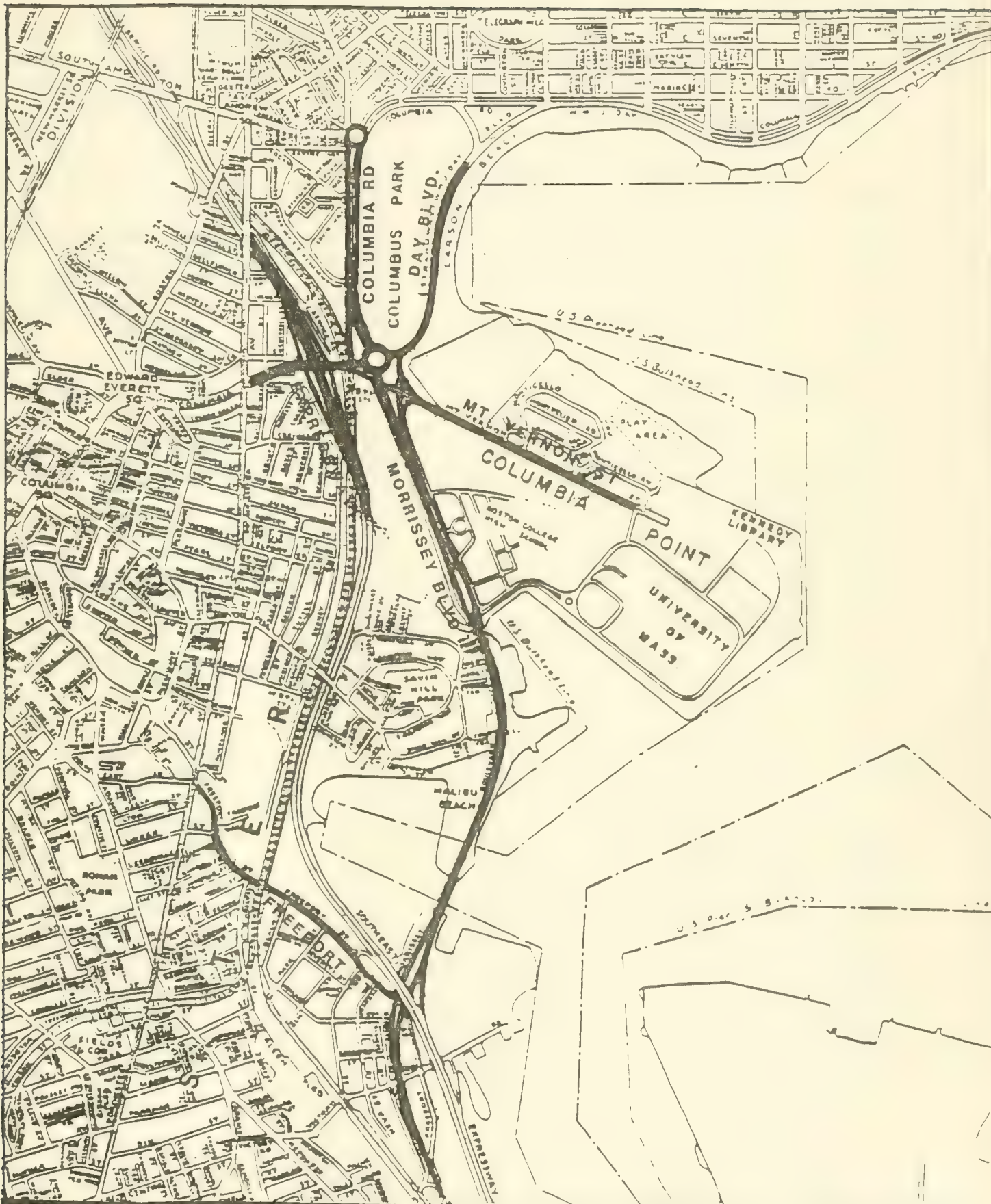
Access to Columbia Point is made by various roadways with the Southeast Expressway being the major highway serving the area. Access ramps from the Expressway to Columbia Road are to the west of Kosciuszko Circle, which connects to Old Colony Blvd., William J. Day Blvd. and Morrissey Blvd. Additional Expressway ramps at Freeport Street and Morrissey Blvd. serve major traffic to and from the south (see Figure V-2).

The principal local street that serves the northern portion of the area is Mt. Vernon St., which connects to Day Blvd. and Morrissey Blvd. to the west and to the public housing area to the east, ending in a cul-de-sac. Traffic volumes range between 5,000 to 9,000 vehicles per day.

Traffic volumes on the major street highway network in the Columbia Point area for the PM peak hour and Average Weekday Traffic (AWDT) are indicated on Table 1 and Figure V-3.

The ability of a roadway system with a defined area to handle a given volume of traffic is usually controlled by the operation of the major intersections within the area. The operation of an intersection may be categorized rather broadly by the Level of Service provided.

Highway Capacity Manual (Highway Research Board Special Report 87, 1965) has defined six (6)



**COLUMBIA POINT PENINSULA
REVITALIZATION PROGRAM**

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V-7

**COLUMBIA POINT
TRAFFIC IMPACT AREA**

FIGURE V-2

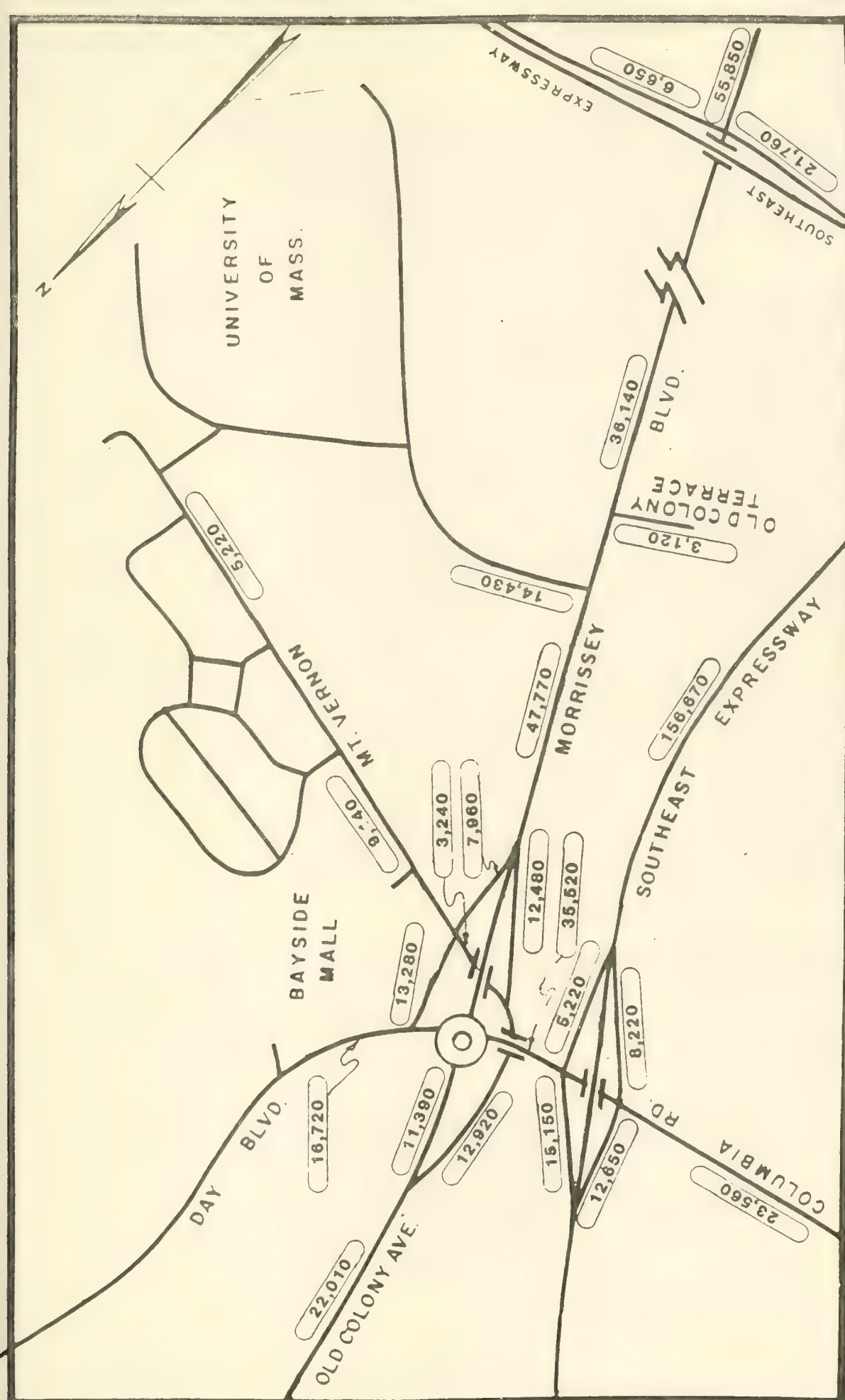
TABLE 1

COLUMBIA POINT REVITALIZATION PROGRAM (1984 Existing)

Traffic Volumes* on Major Project Area Streets and Highway Network

<u>Street</u>	<u>P.M. Peak</u> <u>4 - 5 P.M.</u>	<u>A.M. Peak</u> <u>7 - 8 A.M.</u>	<u>AWDT</u>
Southeast Expressway			
Southbound Ramp	480	--	12,650
Northbound Ramp	250	--	5200
Columbia Road			
Eastbound	1050	--	14,134
Westbound	1360	--	15,185
Wm. J. Day Boulevard			
Eastbound	580	--	9333
Westbound	750	--	6824
Wm. J. Day Boulevard Connector			
Northbound	670	--	8978
Wm. J. Day Boulevard Connector			
Southbound	260	--	4233
Mt. Vernon Street			
Westbound	526	--	4529
Morrissey Boulevard Off-ramp			
Northbound	443	--	7955
Old Colony Avenue			
Eastbound	970	--	6953
Westbound	303	--	3226
Morrissey Boulevard @ U-Mass Rd.			
Northbound	930	3678	22,470
Southbound	2994	126	22,057
U-Mass Road			
Westbound	548	178	6649
Morrissey Blvd. @ Freeport St.			
Northbound	814	--	20,955
Southbound	2907	--	29,924
Freeport Street			
Eastbound	564	--	9316
Westbound	447	--	4937

*One-way intersectional approach volumes



**COLUMBIA POINT PENINSULA
REVITALIZATION PROGRAM**

**Average Weekday Daily Traffic
1984 Existing**

discrete Levels of Service (LOS) to describe actual traffic operating conditions, ranging from free flow to extremely congested conditions. These LOS measures take into consideration the relationship between traffic volume, roadway capacity and operating speed. These six levels are shown pictorially on Figure V-4.

In general, Level A is associated with relatively free flow and average overall travel speed in excess of 30 mph. Level B represents slight delays and speeds of 25 mph or greater. Level C, which roughly corresponds to a concept of "practical capacity", indicates stable flow with acceptable delays and speeds of 20 mph or more. Level D approaches unstable flow and delay has increased to the "tolerable" level, while minimum speed has decreased to 15 mph. Level E, which roughly corresponds to the "basic capacity" of the facility, indicates unstable flow with congestion and long delays. Average overall travel speed is approximately 10 to 15 mph. Level F describes forced flow with congested and jammed operation and characteristic speeds of less than 10 mph.

Levels of Service at key intersections within the project's traffic study area and adjacent areas, indicated in Table 2 and Figure V-5, range from LOS A at Mt. Vernon Street and Day Blvd. Connector to LOS F at Morrissey Blvd. and Freeport Street in the generally more critical PM (compared with AM) peak period of 4:00 PM to 5:00 PM. As a special critical situation, the LOS for U-Mass Roadway and Morrissey Blvd. is shown for the AM peak hour.

TABLE 2

Levels of Service - Columbia Point Traffic Study Area

<u>Intersection</u>	<u>LOS</u> <u>PM Peak Hour</u>
Columbia Rd/Expressway SB off-ramp	C
Columbia Rd/Expressway NB off-ramp	D
Day Blvd/Day Blvd Conn.	D
Mt. Vernon St./Day Blvd Conn.	A
Old Colony Ave./Morrissey Blvd SB on-ramp	A
U-Mass/Morrissey Blvd	B*
Morrissey Blvd/Freeport St.	F

*LOS F in AM Peak Hour



A Relatively free flow of traffic with some stops; average over-all speeds 25mph and greater.



B Stable flow with no unreasonable delays; speeds 20 mph and above.



C Stable flow with significant but acceptable delays; speeds 15 mph and above.



D Approaching unstable flow with tolerable delays; speeds 10 mph and above.

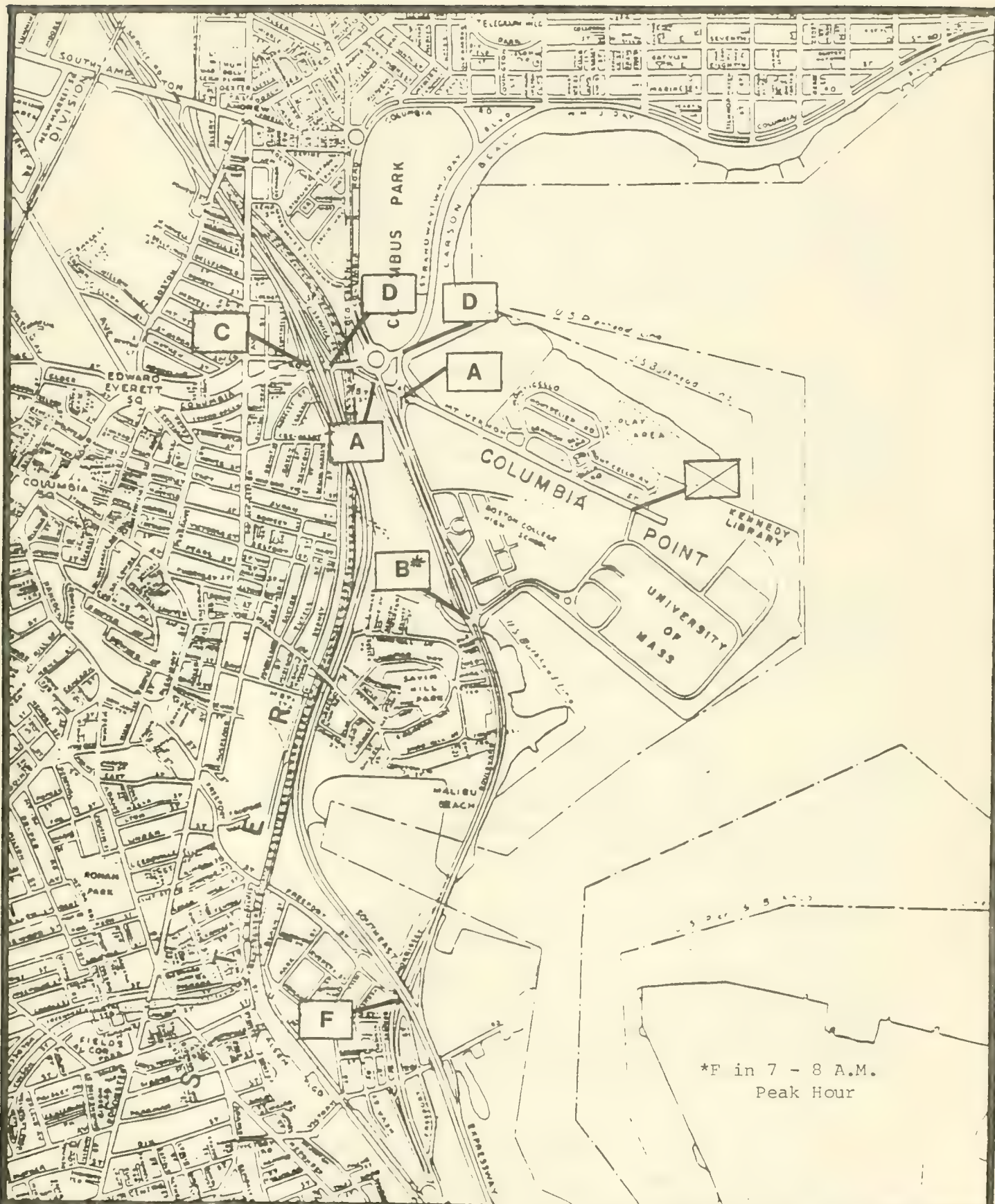


E Unstable flow with congestion not due to back-ups ahead; speeds below 10 mph but moving



F Forced flow, traffic jammed; stop-and-go conditions.

LEVEL OF SERVICE CONCEPT



**COLUMBIA POINT PENINSULA
REVITALIZATION PROGRAM**

**P.M. Peak Hour Level Of Service
4:00-5:00
1984 Existing**

Specific comments on the several major intersections are given below:

Columbia Rd./Expressway Southbound Off-Ramp

Currently operating at a LOS of C with signals on flashing operation, this intersection is affected by high volumes of traffic bound for Dorchester and the Morrissey Boulevard Massachusetts Ave. corridor, as well as traffic bound for the northbound portion of the Southeast Expressway.

Columbia Rd./Expressway Northbound Off-Ramp

This intersection, which is approximately 200 feet from the southbound off-ramp, operates at a LOS D, with signals on flashing. Traffic volumes emanate from Kosciuszko Circle and Columbia Road as access to the Southeast Expressway north and south.

Day Blvd./Day Blvd. Connector

Day Blvd. has been in the past and is still regarded as an alternate route to the downtown section of Boston by the motoring public from Morrissey Blvd. The intersection now operates at LOS D.

Mt. Vernon St./Day Blvd. Connector

The Mt. Vernon St./Day Blvd. Connector, Morrissey Blvd. northbound off-ramp and Old Colony Avenue intersection serves the existing public housing and the Bayside Expo Center. During peak hours, it operates at LOS A.

Old Colony Ave./Morrissey Blvd. Southbound On-ramp

The intersection is used extensively by the U-Mass shuttle service connecting with the MBTA Red Line and by the general traffic as an alternative route to Morrissey Blvd., by-passing Kosciuszko Circle. It currently operates at LOS A.

U-Mass Rd./Morrissey Blvd.

The U-Mass/Morrissey Blvd. intersection is an

alternative route from the Expressway. While the P.M. peak hour operates at LOS B, the same intersection operates at a LOS F in the A.M. This is due to heavy volumes to the University.

Morrissey Blvd./Freeport St.

The Morrissey Blvd./Freeport St. intersection has many problems and operates at LOS F during peak hours due to Expressway traffic using Morrissey Blvd. as an alternative route.

3.2 Public Transportation

Public transportation serving the Columbia Point area can be grouped into three categories (see Figure V-6):

1. Red Line Rail Rapid Transit
2. MBTA Surface Bus
3. U-Mass Shuttle Bus

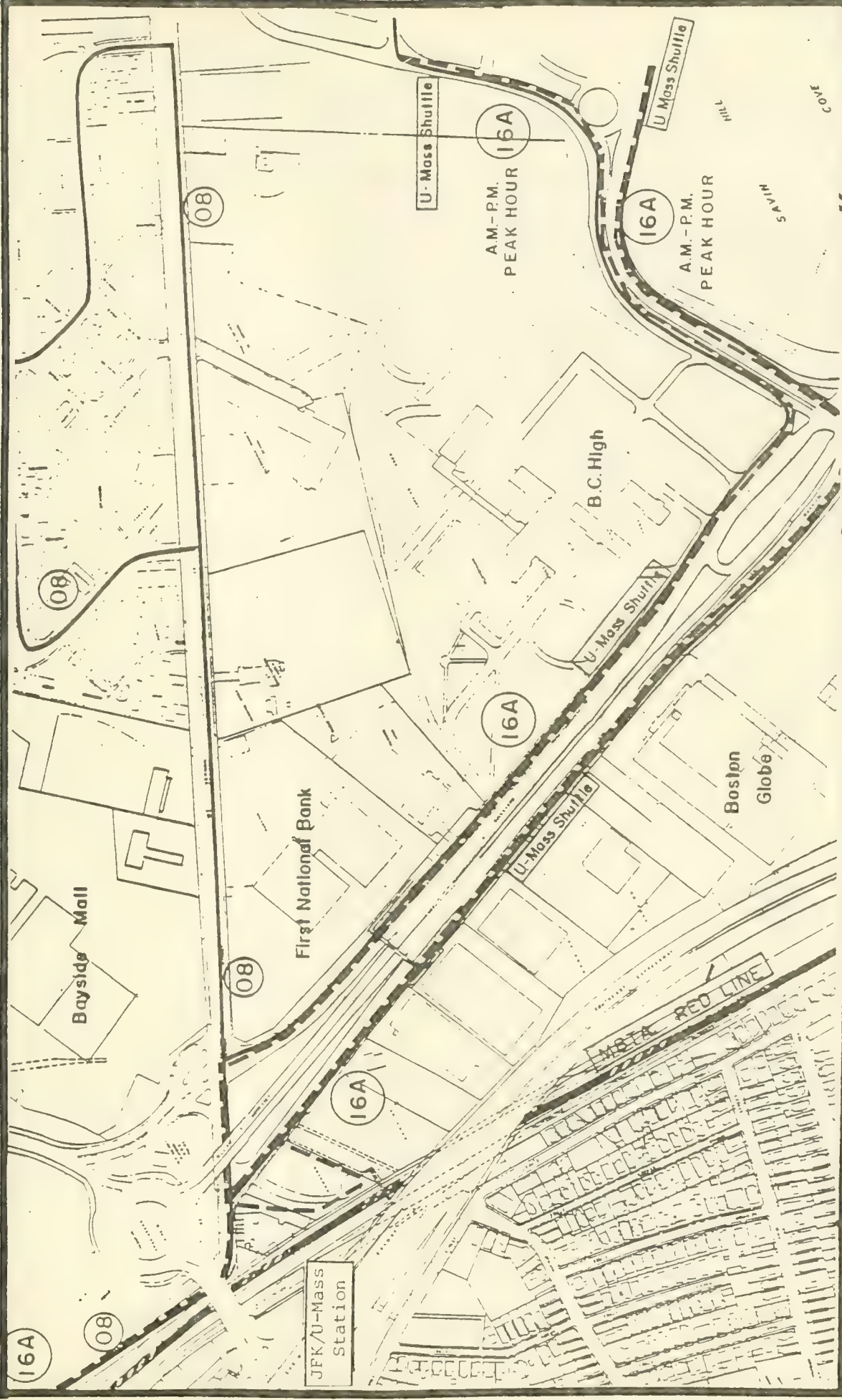
a. Red Line Rail Rapid Transit

Rail rapid transit is provided to the Columbia Point area by the MBTA's Red Line. Four Red Line tracks pass through the existing JFK/U-Mass Station area providing two types of trips to the Columbia Point area. From the South Shore, patrons must ride the Red Line's Harvard-Braintree train north through JFK/U-Mass Station to Andrew Station and transfer to a southbound Dorchester branch train and ride one stop back to JFK/U-Mass Station. As from the south, patrons from the north use only Dorchester branch trains to stop at the JFK/U-Mass Station, as the Braintree trains at present can only pass through the station.

b. MBTA Surface Bus

MBTA bus service is provided by route 08 (Columbia Point to Dudley Station). This route goes directly into Columbia Point via Andrew Station using Mt. Vernon Street with headways of approximately 30 minutes.

Route 16A (Forest Hills - U-Mass) service is provided during morning and evening peak hours, has headway times of approximately 20



**COLUMBIA POINT PENINSULA
REVITALIZATION PROGRAM**

PUBLIC TRANSPORTATION
Existing

minutes, and runs via Morrissey Blvd./ U-Mass Road and returns stopping at Boston Street by Andrew Station.

c. U-Mass Shuttle Bus

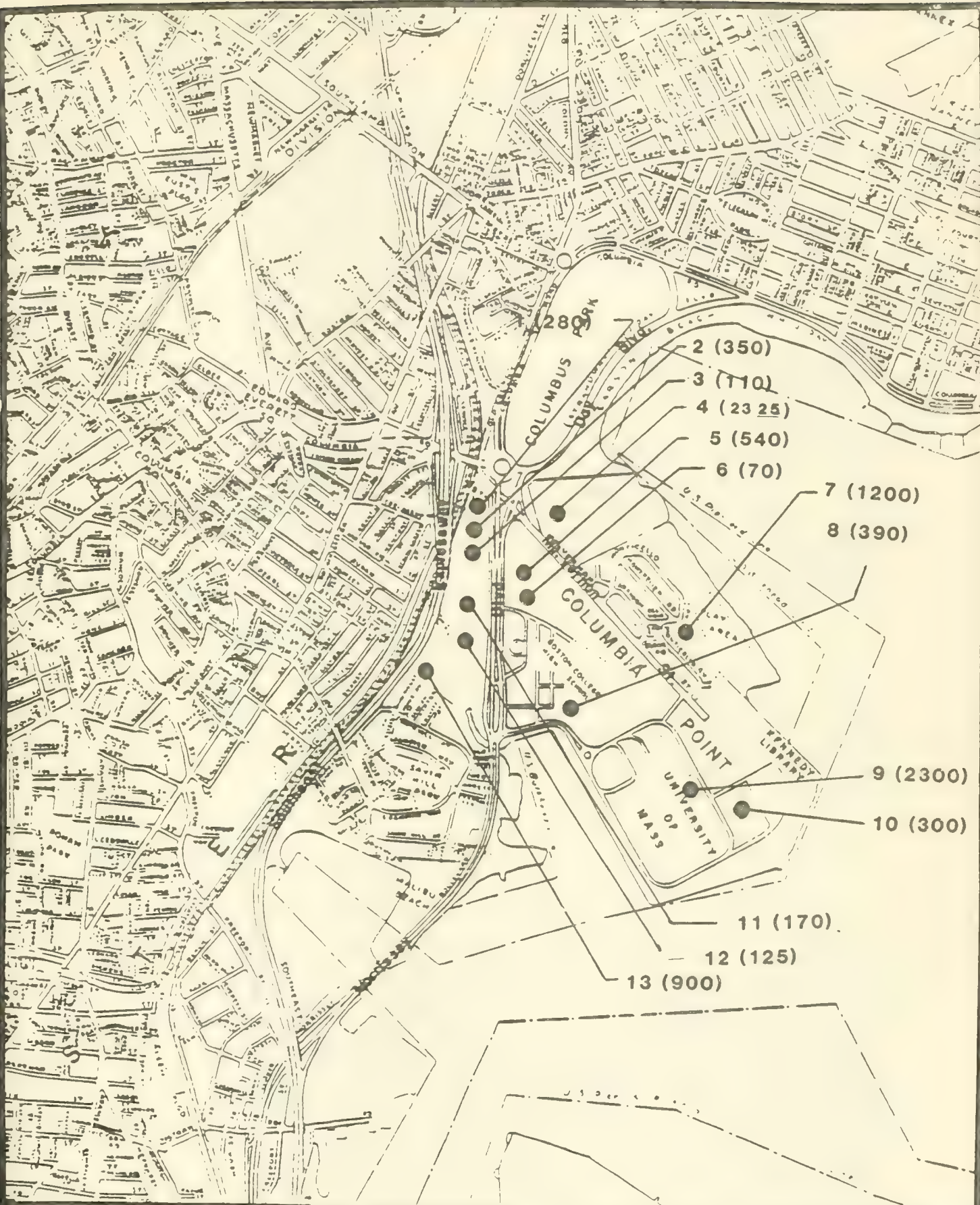
U-Mass currently operates its own shuttle service between its harbor campus on the peninsula and the JFK/U-Mass rapid transit station with headways of 2 to 3 minutes during peak periods and 12 minutes on off-peak hours. The hours of operation are 6 AM to 10:30 PM. In addition, there is shuttle service from Downtown Boston (Park Square) via the City Hospital area to the harbor campus. This service has headways of up to 30 minutes. The average daily ridership for the U-Mass shuttle is between 10,000 and 11,000 persons (total, both ways) rising to a peak of over 12,000 persons during the fall season when 12 buses are utilized.

3.3 Parking

Existing traffic to Columbia Point is served by the following parking (See Figure V-7).

1. U-Mass (leased)	280
2. Girl Town	350
3. Sperry Corporaton	110
4. Bayside Mall	2325
5. First National Bank	540
6. First National Bank	70
7. Columbia Point Housing	1200
8. Boston College High	390
9. U-Mass	2300
10. Kennedy Library	300
11. W-L-V-I TV	170
12. Boston Globe	125
13. Boston Globe	900

Although the parking spaces for the University of Massachusetts and the established Morrissey Blvd. commercial uses are well utilized, the Columbia Point housing spaces suffer from very low use due to the diminished population. The First National Bank and the Boston Teachers Union park autos on the Bayside Exposition Center site, along with employees and patrons of the recently opened Center.



COLUMBIA POINT PENINSULA REVITALIZATION PROGRAM

Existing Parking

boston redevelopment authority
transportation planning department

FIGURE V-7

When parking fees are collected (upon entry) at the Bayside Expo Center at peak periods, serious queueing can be beyond Kosciuszko Circle. This appears to be a major contributor to congestion caused by Expo Center operations. Overall these situations have not been frequent and have tended to occur, as might be expected by Expo Center attendance peaking characteristics, at times different than regular weekday AM and PM peak traffic periods.

3.4 Pedestrian Circulation

The major pedestrian approaches to the Columbia Point study area are via Mt. Vernon Street from William J. Day Blvd., Morrissey Blvd. and Old Colony Ave. The principal link from JFK/U-Mass Station is Mt. Vernon Street. There is no clearly defined pedestrian link to the area other than a foot-bridge on Morrissey Blvd. which connects commercial uses on Morrissey Blvd. and JFK/U-Mass Station to Boston College High School and the Channel 56 TV facility. Major pedestrian activity occurs at this location during commuter and school access hours.

3.5 Water Transportation

There is no commercial/pleasure boat usage around the Columbia Point study area, except for a small dock and mooring area at U-Mass at Savin Hill Cove. Just to the south is the Savin Hill Yacht Club and further to the south on Dorchester Bay Basin inside of Morrissey Blvd. is the Dorchester Yacht Club.

4. Public Services and Utilities

4.1 Public Services

The Columbia Point area is serviced by some ten community and social service organizations focusing primarily on family services and Senior Citizens programs. A number of services located on-site have left in recent years with the diminishing population, including the Boston Parks and Recreation Department's Youth Center, the food cooperative, and the Boston Legal Assistance Program. A Columbia Point service study completed in November, 1981, indicated that social services were adequate at the time for the current population but that there were missing components.

The most difficult issues to address are unemployment, educational limitations and crime. The decrease in public funding for social agencies has made it even more difficult to deal with these problems. The essential key to delivering effective service is collaboration among the agencies. The Boston Housing Authority has already initiated a process through which several agencies are meeting in working sessions to develop centralized administrative functions.

There also are a number of agencies off-site that service Columbia Point residents. Most of the clients are attracted through referral or because of the unique service an agency has to offer. Among these agencies are the Visiting Nurses Association, the Boston Children's Service Association, and the Family Service Association of Greater Boston. The Family Service Association maintains a key staff person assigned to the Columbia Point community.

Columbia Point is located within District 6 of the Boston Fire Department with the nearest fire station approximately 0.8 miles from the site. Police protection is provided by the Area C Station, 9 miles away in Dorchester. In addition, there is a Team Police Program operated under contract with the BHA.

On October 1, 1984, CMJ Management Company began its day to day management operations for the Boston Housing Authority at Columbia Point. CMJ Management has hired a private security company to augment the team police program.

Educational facilities on Columbia Point include two public schools - the Dever Elementary and McCormack Middle Schools - and Boston College High School (R.C.). Both public schools are of recent construction (1957 and 1967, respectively) and are in sound condition. Columbia Point is included in District 6 of the Boston School Department and is served by the South Boston High School. Also located on the Point is the Boston Harbor campus of the University of Massachusetts.

The Columbia Point Health Center provides general health care and dental services to the project's residents, and similar services are delivered through the McCormack Housing development in South Boston. The Health Center also plays a supportive

role to the Columbia Point Alcoholism Program and the Drug Program of the Columbia Point Youth Center.

In existence for approximately 25 years, the P.M. Hassett Day Care Center is another resource located within the Columbia Point Community. This facility provides day care services for up to sixty children between the ages of 2-5 years. With a staff of eight, including two teachers and a social worker, the Center's curriculum includes the teaching of small and large motor and cognizant skills. The center is funded through direct payments, the Massachusetts Bay United Way, and the Massachusetts Department of Social Services. The P.M. Hassett Day Care Center will continue to operate in the new Harbor Point, expanding to allow for 100 children.

4.2 Public Utilities

The proposed project site is served by the Massachusetts Water Resources Authority's (MWRA) sewerage system (formerly the MDC's) running beneath Mt. Vernon Street. In 1982, conversion of the old Mt. Vernon Street combined sewer (an extension of the Boston Main Interceptor) into a separated system was completed. The old interceptor, measuring 72 inches to 84 inches in diameter, now functions as a storm drain and a new 24-inch to 36-inch diameter main was installed for sanitary sewage. Modifications to the existing combined system in the housing project were also made at this time. The work resulted in the separation of sanitary sewage and storm drainage flows. Sanitary sewage from the peninsula is sent to Deer Island, via the Boston Main Drainage Tunnel, for primary treatment, and storm water flows directly into the Harbor. The old interceptor previously ended at the Calf Pasture Pumping Station which siphoned sewage to Moon Island. However, the system was substantially modified through improvements made to the sewer system and completion of the Deer Island Sewage Treatment Plant in 1968. Calf Pasture Station is in poor condition and operates now only as a relief mechanism during heavy precipitation, when the capacity of the headworks at Columbia Point is exceeded. At this time, the Calf Pasture facility pumps the overflow from the old interceptor line into the Harbor. Since 1971, the Calf Pasture

facility has been activated an average of 17 times per year.

Currently, it is estimated that the Mt. Vernon Street sewer handles approximately 215,000 gallons of sanitary sewage in an average day. Separation of the former combined system has augmented the flow capacity of the sewers serving the Columbia Point peninsula.

According to the 1980 Dorchester Bay Combined Sewer Overflow (CSO) Facilities Planning Study conducted for the Metropolitan District Commission, the performance of the Dorchester Bay area wastewater collection system is good. Based on field investigations during the summer and fall of 1978, no surcharge conditions were detected in any of the major interceptors and all interceptors appeared to flow with adequate velocity. In addition, no major structural deficiencies were discovered in regulators, tide gates and sewer manholes. The study recommended that, in order to eliminate pollution from the 11 CSO outfalls in Dorchester Bay, two screening and disinfection facilities should be built, and a 3 million gallon storage facility should be constructed near Kosciuszko Circle for CSO control in the Old Harbor area. This latter facility, to be located within (primarily below surface) the Bayside Center parking area adjacent to Mother's Rest Park, will screen and store CSO volumes for storm events up to a 3-month design storm and pump the stored CSO to the Columbia Park Headworks after storms, when sufficient hydraulic capacity becomes available.

The MWRA also supplies water to the City of Boston water distribution system. The MWRA system includes 32 communities and has a total pumping capacity of over 450 million gallons per day. The principal source of water is the 18-mile long Quabbin Reservoir, located in Central Massachusetts. Due to the high quality of this water supply and strict enforcement of sanitary regulations in the watershed, it is unnecessary to maintain and operate extensive water treatment facilities. Water is distributed through a 12-inch main in Mt. Vernon Street and through 8-inch lines in the streets within the housing project. The main is considered adequate by the Boston Water and Sewer Commission to serve the water requirements at Columbia Point.

5. Recreational Facilities

Presently, the primary recreational facilities for the residents at Columbia Point are located on 9.8 acres of land on the water's edge at the northeastern side of the site (Figure V-8). This land, which includes two parcels of tidal flats and two upland parcels, was developed as a recreation area for the residents of the housing project as part of the original development in 1953. In 1970, the land was transferred to the City of Boston by the Boston Housing Authority. In 1974, the City, using State and National Park Service funds, constructed a new recreation building, and renovated the playground facilities on the City's property.

The site, which has lights for night use, offers tennis, basketball and street hockey courts, baseball and rugby fields, a tot lot and a spray pool. Despite these facilities, the site has never been fully utilized for a number of factors. These include: location in an area that is not attractive to non-residents; a steadily decreasing resident population; a waterfront location that is attractive but poorly sited for many sports and far removed from the housing units; and poor maintenance.

A small beach owned by the BHA is located at the southeastern end of the project site. Despite poor conditions caused by beach grass, broken glass, and other debris, it has been used over the years by Columbia Point residents for swimming.

The condition of the areas to the west and east of the BHA and City properties that are proposed for development as part of the waterfront park are presently very unattractive and neglected. Between Mother's Rest and the BHA site, the waterfront area is covered with overgrown weeds and deteriorating rip-rap bounded by a chain-link fence. To the east, between the BHA beach and JFK Library property, on BWSC and U-Mass land, is an area that has been filled with construction material and lightly covered with dirt. Overgrown with weeds and wild trees, it is often used for illegal dumping. However, this small knoll does provide scenic views in all directions since it is higher than the rest of the peninsula.

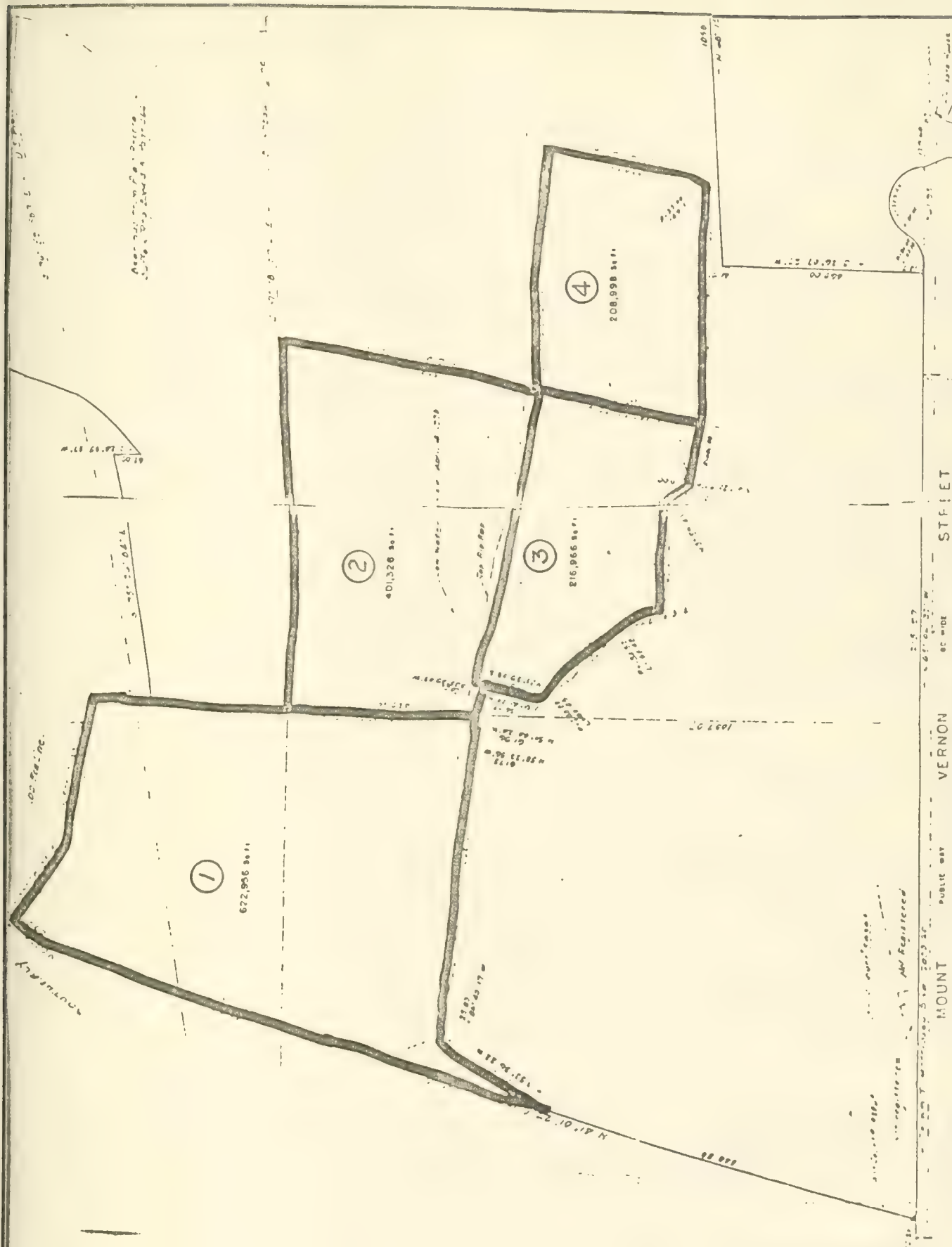


FIGURE V-8
PARK SITE LOCUS

H.W. MOORE ASSOCIATES INC.
CONSULTING ENGINEERS
BOSTON, MASS.

SCALE: N.T.S.

C. NATURAL PHYSICAL CHARACTERISTICS

1. Geology and Topography

1.1 Geological and Subsoil Characteristics

Originally 14 acres of exposed tidal marshland, Columbia Point was extended by a series of landfill projects until it reached its current size of approximately 350 acres in 1962.

In a report entitled "Development of the Calf Pasture, Dorchester", December 28, 1950, by Glasser and Gray, Architects, it is stated that:

"The existing land has largely been created by a filling operation extending over many years and going on at the present time. Subsoil information is available from the work done at the pumping station and at Boston College High School, and from boring data supplied for a small part of the area by the Boston Housing Authority. These investigations, as far as they go, indicate that under the fill exists a stratum of hard sand of varying thickness, underlain in turn by soft mud, running down to refusal at a depth averaging 150 feet. The water level is high throughout the site."

In a letter to the BHA from Joseph Gray of the same firm, dated March 15, 1951, he states:

"The one element most difficult to evaluate for its effect on the development is the subsoil condition. Borings made by the housing authority on a fraction of the area plus general information made available by the construction of Boston College High School and the pumping station indicate that there is in general a stratum of relatively hard ground from 6 to 25 feet thick lying at an elevation of 0 to -5. Below this depth, a layer of soft clay goes down to 200 feet."

A subsurface exploration program, consisting of forty seven test borings taken within the building area, was conducted in May and June of 1985 and the results are summarized below. A description of the subsurface profile appears in Appendix F and as follows:

Harbor Point lies over a more or less typical soil

profile similar to other areas on the Point constructed over a land fill, generally including miscellaneous fill followed in some cases by a peat layer representing the surface of the old tidal marsh, then a medium dense glacial outwash sand layer, over a substantial depth of blue-grey clay deposited in a marine environment, which is in turn underlain by very dense glacial till and/or Argillie bedrock.

Specifically, the characteristics of the substrata are as follows:

1.1a. Fill Deposits

The miscellaneous fill is quite organic in nature consisting of household rubbish including glass, paper, metal, plastic, rubber, wood, ash, cinders, and other random material including brick, concrete, sand, silt, wire, wood, slag, asphalt, grass, coal, gravel, and metal. The layer of fill varies over the site from 3'+ to 25'+ with an average of 16'+.

1.1b. Peat Layer

The silty peat layer varies in consistency from very soft to medium stiff and in content from mostly black organic silt to a very fibrous clayey peat and silt, usually exhibiting a strong odor. The thickness of this layer varies from 0'+ to 8'+ although it was at times difficult to distinguish the change from the fill to the silty peat and thus in some cases the layer may be slightly thicker or thinner than recorded, or be present where recorded as absent.

1.1c. Sand Layer

The sand is a grayish brown to tan medium dense to very dense deposit with some erratic stiff clay lenses exhibiting relatively uniform bearing strength. The thickness ranges from 5+ feet to 40+ feet with an average being about 15 feet.

1.1d. Clay

The clay below the sand is commonly referred to as Boston Blue Clay and is found around much of the Boston area. This layer extends 90'+ to 230'+ below grade. It varies in consistency from soft to stiff, except directly beneath the sand layer

where, in most cases, the clay was more yellow in color and significantly harder than at greater depths. This is the result of being dried out while exposed to air during earlier glacial periods, resulting in strengthening and discoloration of the superficial layer, then gradual change back to the weaker blue clay with depth. The clay is interspersed in places with lenses of fine sand.

1.1e. Glacial Till/Bedrock

Underlying the clay is a layer of very dense gravelly and bouldery glacial till followed by Argillite bedrock. The till is a heterogeneous mixture of sand, gravel, silt, clay, cobbles and boulders.

1.2. Topographic Conditions

The topography within the site is relatively flat, with site grades varying between 15+ and 19+ (Boston City Base elevation) with El. 17 being the average. Boston City Base datum is 5.65' below USGS mean sea level.

1.3 Water Table

Groundwater observations were made over a period of six months in observation wells relatively close to the Bay with respect to the site as a whole. The data gathered from these wells suggest no major fluctuation of levels due to tidal influence, although it could be concluded that levels do coincide with tidal phases causing changes in readings of 2 - 4 feet. The highest and lowest Boston City base groundwater elevations were 10.6' and 4.2' respectively.

Examining the site as a whole, water levels taken upon completion of borings ranged from 7' to 16' below grade with an average of 10.5' below grade. These depths correspond to elevations of 2.25' to 10.5' with an average elevation of 7' Boston City Base. Even though these readings were taken upon completion of the borings, they can be taken as representative since the fill, in which the water level occurred most of the time, is permeable enough to allow the water table to stabilize during boring operations.

2. Flooding

The perimeter of the Columbia Point housing site extends into Dorchester Bay, and lies within a designated Flood Hazard Area as determined by the Federal Emergency Management Agency (FEMA). The flood hazard areas include a Zone A3 (base flood elevation of 16.15 feet BCB, representing the 100-year flood area), a Zone B (area between the 100-year and 500-year flood event), and a Zone C (area of minimal flooding) <See Figure V-9>. All of the existing and proposed housing, with the possible exception of two buildings, lies within the Zone C area. The new mall building in the northwestern corner of the site will lie partially within Zone B. A small portion of the new townhouse building immediately to the east of the mall building may also lie within Zone B. Some of the recreational facilities along the waterfront are in Zones A3 and B.

Wave height is also a factor in coastal areas. In a Flood Insurance Study conducted in October, 1981, consideration was given to the vulnerability of the coastal areas of Boston to wave attack during severe storms. Areas of coastline subject to wave attack are referred to as coastal high hazard zones. Methods have been developed to determine which sections of coastline fall into this category. These methods were applied to all of the coastal areas of Boston. The factors considered included choice of a suitable fetch (wave generation area), its length and width, sustained wind velocities, coastal wave depths, and physical features which could affect wave propagation. All of these factors were analyzed to determine those areas along Boston's coastline where a three-foot wave could exist during a 100-year flooding event. A three-foot wave is the minimum size wave capable of causing major damage to a conventional wood or brick veneer frame structure.

Boston is subject to waves primarily generated by northeasters, but is somewhat protected from large waves by Deer Island and the Hull Peninsula. Fetch lengths are sufficient to produce three-foot waves along much of the coastline. The wave hazard areas, or "velocity zones" (V-Zones) are shown on Flood Insurance Rate Maps. As can be seen, the project site is bordered by a V-3 Zone with a base elevation of 10.5 feet. However, all of the existing and proposed housing is well outside of the wave hazard area.

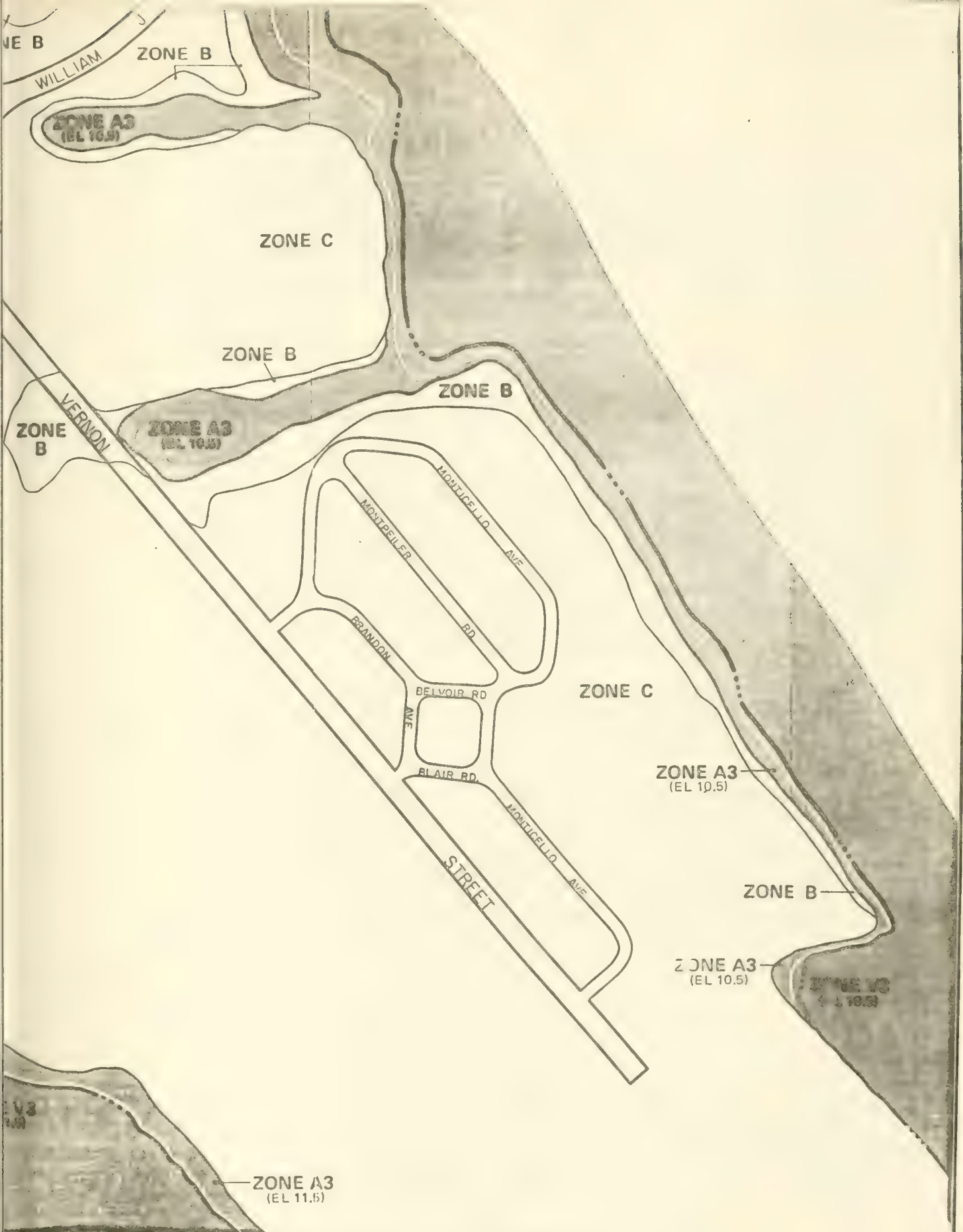


FIGURE V-9
FEMA FLOOD HAZARD AREA

H.W. MOORE ASSOC., INC.
CONSULTING ENGINEERS
BOSTON, MASS.

SCALE:
N.T.S.

3. Water Quality

In accordance with the "Massachusetts Water Quality Standards", The Massachusetts Division of Water Pollution Control (DWPC) has classified Dorchester Bay as a Class SB body of water. In general, water bodies assigned to this class are designated for uses of protection and propagation of fish, other aquatic life and wildlife; for primary and secondary contact recreation; and are restricted for shellfish harvesting.

In 1982 and 1983, the DWPC conducted extensive sampling studies of water quality throughout Boston Harbor. Sampling stations located in Old Harbor south of the L Street Beach (Station BH09) and in Dorchester Bay midway between Squantum Point and Columbia Point (Station BH10) were the closest stations to the site. In general, they met the SB standard and exhibited good water quality. Dissolved oxygen levels consistently met the minimum standard of 6.0 mg/l and pH was well within the range of 6.5 - 8.5 standard units. Both coliform and fecal coliform bacteria levels generally were extremely low. No significant water quality changes were noted after a storm event; thus, it was assumed that CSO impacts are fairly minimal.

Several programs to improve water quality in the Boston Basin are either planned for or in the implementation stage, with the control of CSO's a priority. In 1980, the Charles River Estuary Pollution Control Facility was completed, treating CSO's that enter the river from Boston, Cambridge and Somerville, thus eliminating the CSO pollution from entering the Harbor via the Charles River. The MDC also had recommended construction of CSO facilities at 11 locations in the Inner Harbor. In July 1985, the Massachusetts Water Resources Authority (MWRA) assumed control of the MDC's water and sewer divisions with the goal of improving the Harbor's water quality. The MWRA has recommended construction of a new Secondary Treatment Plant on Deer Island.

4. Vegetation and Biological Resources

4.1 Vegetation

Vegetation on Columbia Point falls into two categories: (1) wild vegetation on unimproved portions of the peninsula including Atriplex (salt bush), Chenopodium (lambsquarters), Amaranthus (pig weed), Polygonum (smart weed), and other wild grasses, and (2) trees and shrubs planted as

landscaping for the public housing project, the University of Massachusetts campus, and the Kennedy Library. The landscaping was selected for its compatibility with other coastal vegetation and its ability to survive weather conditions that prevail on the Columbia Point peninsula. According to the Massachusetts Natural Heritage Program, no rare or endangered plant species have been identified on the project site (See Appendix G).

4.2 Wildlife

As indicated in the University of Massachusetts Environmental Impact Report, Dr. Jeremy Halik of the University's Biology Department describes the area as having a very impoverished fauna of land vertebrates although the surrounding mudflats and water have many birds. About 15 species of land birds (see Table 3), primarily sparrows, starlings, and pigeons, frequent the site, but there is no reason to assume that this is an important staging area. As existing and new landscaped trees and shrubs continue to grow in the area, more nesting and perhaps breeding may occur.

Water fowl include a variety of species, as listed in Table 4. No breeding occurs on the project site although the surrounding areas are feeding grounds for summer-breeding gulls and terns and wintering ducks and migrant shore birds.

Rats and mice appear to be the only mammals that breed in the project area.

4.3 Aquatic Life

Boston Harbor, in spite of adverse water quality conditions, is the site of abundant and varied forms of marine life, exhibiting the full range of the ocean food chain from algae to numerous finfish species. The Columbia Point Peninsula, however, may have had a local deadening effect on Dorchester Bay during the several decades prior to 1962 when it served as a dumping ground. But as part of the construction of the University of Massachusetts Harbor Campus, a dike was constructed around the southeastern and southwestern perimeter of the newly-defined land mass, which appears to have contained the leaching of harmful chemicals from the underlying refuse dump. The Environmental Impact Report for the

TABLE 3

COLUMBIA POINT LAND BIRD SPECIES

Land birds. No breeding records on campus. It is likely that house sparrows, starlings and pigeons nest on the adjacent MDC property. As the recently-planted trees and shrubs grow up, some bird species will probably start to breed. The following species were observed as transients in 1974 on campus:

- Sparrow hawk
- Killdeer
- Mourning dove
- Rock dove
- Ruby-throated hummingbird
- Barn swallow
- Common crow
- Robin
- Starling
- House sparrow
- Red-winged blackbird
- Common grackle
- White-throated sparrow
- Fox sparrow

SOURCE: Dr. Jeremy Hatch, University of Massachusetts Department of Biology. University of Massachusetts/Harbor Campus Phase II Draft Environmental Impact Report, February, 1975.

TABLE 4

COLUMBIA POINT WATER BIRD SPECIES

Water birds. None breed on the site, but surrounding areas are feeding grounds for summer-breeding gulls and terns, wintering ducks and migrant shore birds. The following species were recorded in 1974:

- Double-crested cormorant
- Mallard
- Black duck
- Greater scaup
- Common goldeneye
- Bufflehead
- Red-breasted merganser
- Cattle egret
- Great blue heron
- Black-crowned night heron
- Snowy egret
- Semipalmated plover
- Lesser yellowlegs
- Dunlin
- Semipalmated sandpiper
- Great black-backed gull
- Herring gull
- Ring-billed gull
- Laughing gull
- Common tern
- Roseate tern
- Belted kingfisher

SOURCE: Dr. Jeremy Hatch, University of Massachusetts Department of Biology. University of Massachusetts/Harbor Campus Phase II Draft Environmental Impact Report, February, 1975.

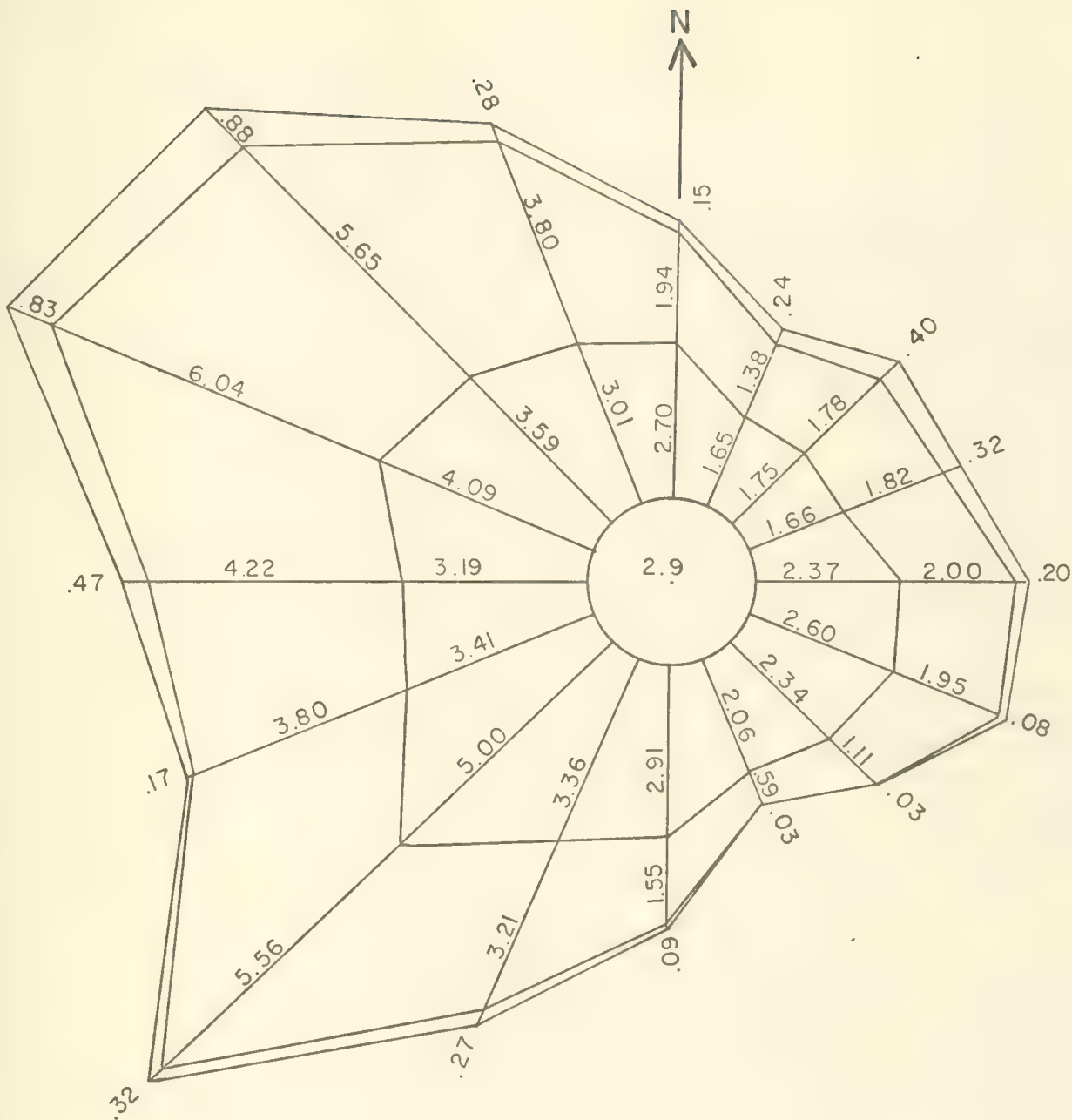
Phase II construction of the Harbor Campus indicated that by 1975 a hardy strain of algae (seaside algae) had colonized the stone walls on either side of the dike in numerous locations. This EIR also included an inventory of higher forms of marine life that was compiled by the Metropolitan Area Planning Council as part of its Harbor Islands Plan. This listing was drawn from the more extensive survey, "Marine Resources of Dorchester Bay". This survey included a variety of additional marine species such as lobsters, horseshoe and green crabs, softshell clams and blue mussels, bloodworms, and seaworms.

5. Wind Environment

According to the annual records of the National Weather Service, Boston lies in the zone of prevailing westerly winds. As measured at Logan Airport, winds from the southwest through the northwest are experienced about half the year, while winds from the southeast are least frequent, occurring only about 3% of the year (Figure V-10). Mean monthly wind speeds range from 10.9 m.p.h. in July and August to 14.4 m.p.h. in January and February. Winds of 32 m.p.h. or higher may be expected at least once a month, and gales are both more common and severe in the winter months. The strongest storm winds are from the northwest. These data indicate that the Boston area in general, and relatively open sites, like Columbia Point in particular, are subjected to a relatively high regional wind environment.

Wind speed and direction vary according to the season. Winter and early spring winds are predominantly from the northwest or west-northwest, which directions also exhibit the highest percentages of winds in excess of 25 m.p.h. - wind speeds which could be hazardous to pedestrians. Nearly 30% of the winter/early spring winds originate from these two directions. Severe winds generally range to 40-50 m.p.h. in the winter and spring months. Summer winds show a strong predominance of southwesterly winds (32% are WSW, SW and SSW), but far fewer winds in excess of 25 m.p.h. There are also significant easterly and northwesterly winds. Monthly extremes are in the 25 to 45 m.p.h. range. Late spring and fall winds are more evenly distributed around the compass, but the northwest and southwest quadrants still predominate, with the easterly quadrant also significant.





NOTES: 1. BASED ON HOURLY RECORDS DATA FROM 1950 THROUGH 1964.

2. FIGURES ARE PERCENT FREQUENCY.

3. CATEGORIES:

CENTER, 0-3 MPH.
RADIATING OUT, 4-12,
13-25, OVER 25 MPH.

SOURCE: U.S. WEATHER BUREAU N.O.A.A.

FIGURE V-10

YEARLY SURFACE WIND ROSE
FOR LOGAN AIRPORT, BOSTON

H.W. MOORE ASSOC., INC.
CONSULTING ENGINEERS
BOSTON, MASS.

D. ENVIRONMENTAL CHARACTERISTICS

1. Air Quality

1.1 Background

National Ambient Air Quality Standards (NAAQS) have been established for major pollutants by the Clean Air Act of 1970 as amended in 1977. These pollutants are: total suspended particulates (TSP), sulfur dioxide, carbon monoxide (CO), nitrogen dioxide, ozone, and lead (Pb). Roadway vehicles constitute a significant source of CO, Pb, and nitrogen oxides (NOx) and can be indirectly responsible for high ambient concentrations of ozone, which result from the photochemical interaction of NOx and non-methane hydrocarbons (NMHC), which is also a byproduct of auto exhaust. Sulfur oxides and particulates are emitted primarily from stationary sources, i.e., industrial stacks, power plants, incinerators, and space heating.

The primary standards specify exposure periods for each pollutant based on studies of health effects. In addition to the primary standards, secondary standards were established to prevent other adverse effects of air pollution, such as damage to personal property and vegetation. The Federal standards, presented in Table 5, also have been adopted by the Commonwealth of Massachusetts.

The Clean Air Act Amendments, passed by the U.S. Congress in August, 1977, required that each state in the country determine whether or not it met the NAAQS. States having violations of any or all of these pollutants must have the U.S. Environmental Protection Agency (EPA) approve their State Implementation Plans (SIP) which document the strategies adopted to attain and maintain the standard by December 31, 1982. Provisions in the Clean Air Act Amendments of 1977 allowed states to obtain an extension of the 1982 attainment deadline providing certain requirements were met including submission of a revised SIP.

In 1982, Massachusetts submitted the 1982 Revision to the State Implementation Plan for Ozone and Carbon Monoxide (SIP) to the EPA. The SIP represents the Commonwealth's revised plan to achieve ozone and carbon monoxide standards by December 31, 1987. The SIP was approved by EPA on

TABLE 5
FEDERAL AMBIENT AIR QUALITY STANDARDS

<u>POLLUTANT</u>	<u>AVERAGING INTERVAL</u>	<u>PRIMARY STANDARD</u>		<u>SECONDARY STANDARD</u>	
		<u>ug/m³</u>	<u>ppm</u>	<u>ug/m³</u>	<u>ppm</u>
Sulfur Dioxide	Annually	80	0.03	-	-
	24 hour	365	0.14	-	-
	3 hour	-	-	1300	0.5
Particulate Matter	Annually	75	-	60**	-
	24 hour	260	-	150	-
Carbon Monoxide	8 hour	10*	9	10*	9
	1 hour	40*	35	40*	35
Ozone	1 hour	240	0.12	240	0.12
Nitrogen Dioxide	Annually	100	0.05	100	0.15
Lead	3 month	1.5	-	1.5	-

ug/m³ - micrograms per cubic meter
ppm - parts per million

*mg/m³ - milligram per cubic meter

** annual average is considered a guideline

November 4, 1983.

The 1982 SIP explained in detail the process and products undertaken by the Metropolitan Planning Organizations (MPO). Among the products of the 1982 SIP process is each MPO region's Transportation Element of the SIP (TESIP) which analyzed a series of reasonably available control measures (RACMS) to control vehicular pollution. Depending upon the outcome of the analysis, each MPO adopted measures seen to be favorable and necessary for the region.

For the Boston Region, these measures include a "freeze" on the construction of new off-street commercial parking facilities in downtown Boston and Logan Airport to discourage automobile trips into these areas, greater use of carpooling, bicycles and mass transit, and the inspection and maintenance (I/M) of emission control equipment on cars. I/M went into effect on April 1, 1983, and, along with the Federal Emission Control Program, is a key to meeting the NAAQS for CO.

1.2 Ambient Air Quality Levels

The basis for determining whether air quality levels are in compliance with standards is data collected from monitoring stations operated by the Massachusetts Air Monitoring Network within each AQCR and reported to the EPA. The most current (1984) air quality data available for these stations are summarized in Table 6.

Observed data indicate that there were no violations of primary or secondary standards for sulfur dioxide or lead within the Boston area. Nitrogen oxide levels were also well within Federal and State annual standards but do exceed the Massachusetts guidelines of 320 u/gm for short-term exposure at the Deer Island monitoring station. Although Boston is officially "unclassified" with respect to TSP, due to insufficient data, recorded levels are high and the 24-hour standard has been exceeded. The entire Commonwealth is designated by the EPA as nonattainment for ozone, and the violation of the one-hour standard has been recorded at the Bremen Street (East Boston) monitoring station.

The City of Boston is also nonattainment for carbon monoxide, due to the identification of

TABLE 6

AIR QUALITY DATA (1984)BOSTON, MASO₂ (ug/m³)

<u>LOCATION</u>	<u>ANNUAL</u>	<u>24-HOUR MAX</u>	<u>3-HR. MAX</u>
Kenmore Square	43	193	278
Kneeland Street	32	171	297
340 Bremen Street	34	171	279
Deer Island	*	120	198

CO (mg/m³)

	<u>1-HOUR MAX</u>	<u>8-HR. MAX</u>
Kenmore Square	15	10
Kneeland Street	14	7
340 Bremen Street	16	8
Essex Street	22	13

OZONE (ppm)

	<u>1-HR. MAX</u>
340 Bremen Street	0.107

NO₂ (ug/m³)

	<u>ANNUAL</u>
Kenmore Square	83
340 Bremen Street	61

TOTAL SUSPENDED PARTICLES (ug/m³)

	<u>24-HR. MAX</u>	<u>ANNUAL</u>
Southampton Street	134	59
340 Bremen Street	130	56
200 Columbus Avenue	123	62

LEAD (ug/m³)

	<u>3-MONTH MAX</u>
Kenmore Square	162
200 Columbus Avenue	

*Annual Arithmetic Mean could not be determined due to insufficient data.

certain "hotspots". According to data provided by DEQE's Division of Air Quality Control (DAQC), the Essex Street monitor recorded two exceedances of the 8-hour CO standard of 10 mg/m (9 ppm) in 1984. In 1982, the Essex Street monitor also recorded the State's last exceedance of the one-hour standard of 35 ppm. Carbon monoxide concentrations, however, are highly sensitive to location and the high levels recorded in downtown Boston are not necessarily representative of conditions at Columbia Point, where meteorological conditions and traffic levels are vastly different.

2. Noise Environment

2.1 Background

The noise environment of a typical urban area is generally defined by an ambient, or steady "background" noise, which is the sum of many different noise sources (commercial activity, heating and air conditioning equipment, the multitude of motor vehicles operating throughout an area), upon which is superimposed the noise of individual local sources, such as passing vehicles or occasional aircraft flyovers.

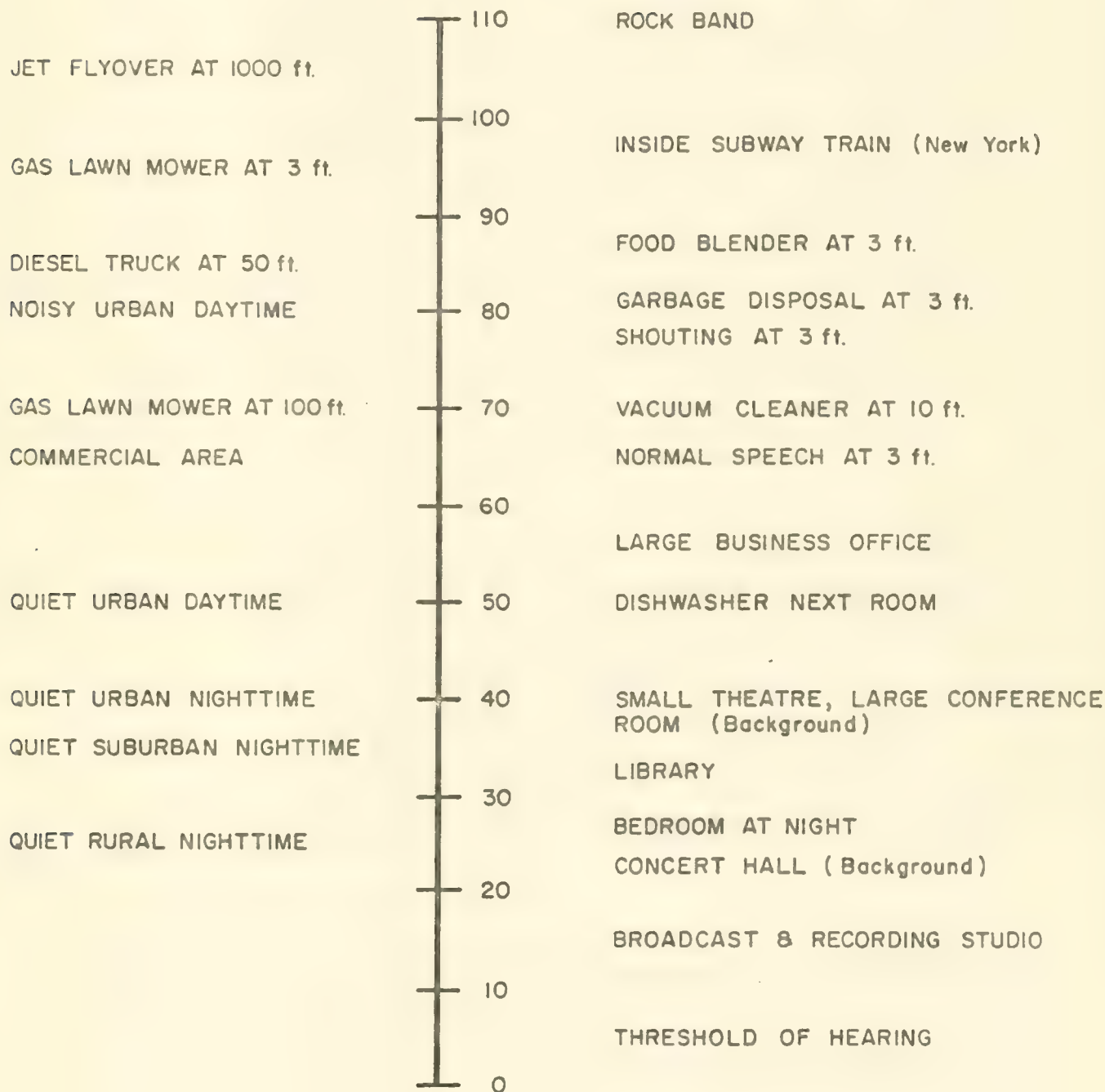
Noise levels are commonly measured on an A-weighted decibel scale, or dB(A), which simulates the human perception of noise, particularly its annoying aspects. Since the dB(A) scale is logarithmic, changes in dB(A) levels do not follow simple arithmetic relationships. Thus, if the sound intensity in any area is doubled, there will be an increase of only 3 dB(A), which is barely detectable. To the human ear, however, sound will appear twice as loud with an increase of approximately 10 dB(A). Noise levels associated with common sources of noise are indicated on Figure V-11.

In assessing potential noise impact, both the time fluctuations of the noise level and maximum noise levels are important. Noise fluctuations may be described by determining those levels exceeded a certain percentage of the time. Hence, for a specific time period, the L90 level describes the noise level exceeded 90% of the time and is generally considered as "background" noise. The L10 level (or the level exceeded 10% of the time) is normally indicative of higher noise levels

COMMON OUTDOOR NOISE LEVELS

NOISE LEVEL dB(A)

COMMON INDOOR NOISE LEVELS



Common Indoor and Outdoor
Noise Levels

occurring during the time period and, in the case of urban communities, indicates the character of localized traffic and aircraft noise sources. The L50 level represents the median noise level.

Another method of quantifying the noise environment is to determine the value of steady-state sound which has the same A-weighted sound energy as that contained in the time-varying sound. This is termed the Equivalent Sound Level (Leq). The Leq is a single value of sound level for any desired duration, which includes all of the time-varying sound energy in the measurement period. The major virtue of the Leq is that it correlates reasonably well with the effect of noise on people, even for wide variations in environmental sound levels and time patterns. It is used when only the durations and levels of sound, and not their time of occurrence (day or night), are relevant. The day/night equivalent noise level (Ldn) is the Leq for a 24-hour period with an additional 10 dB(A) weighting added to the night-time noise levels (10 PM - 7 AM). Ldn and Leq are the noise values now used by HUD and EPA in their acceptability criteria.

In addition to absolute noise levels, an increase in the existing ambient noise levels will be perceived as an intrusion or impact by people who customarily use an affected area. Changes in noise levels create an impact which is roughly proportional to the increase. Empirical studies have shown that, in an urban environment, people can begin to distinguish changes in noise levels of approximately 5 dB(A). Lesser changes are generally considered insignificant and imperceptible. For changes above 5 dB(A), it is commonly accepted that increased of 5 - 15 dB produce "some impact" while noise level increases of more than 15 dB are usually considered severe.

2.2 Ambient Noise Levels

The existing noise environment at the project site is dominated primarily by road traffic noise from nearby arterials and highways and, to a lesser extent, by aircraft operations at Logan International Airport. More localized and/or less frequent noise intrusions come from outdoor athletic activities at the University of Massachusetts campus and Boston College High School and from outdoor activities at the Columbia

Point housing project.

The closest major arterials are Morrissey Boulevard and the Southeast Expressway, which are approximately 1200 and 1800 feet, respectively, from the project site at the closest point. However, the noise contribution from these two arterials can normally be ignored due to the distance from the project site, based on HUD's Noise Assessment Guidelines. The only roadway within the area which will contribute to the noise levels at the site is Mt. Vernon Street.

Aircraft noise has been reduced considerably in recent years, in part due to changes in flight patterns, restrictions on nighttime operations and the use of quieter FAR-Part 36 aircraft. The latest (1982) noise level contours from Logan International Airport indicate that the project site is substantially outside of the 65 dB(A) contour (see Figure V-12). In fact, the highest noise levels due to aircraft are estimated to be only 57 dB(A) in the northeast corner of the project site (See Figure V-13). The remainder of the site lies outside of the day-night equivalent.

The current noise levels at the site from both noise sources are estimated to range from less than 55 to 59.5 dB(A), with levels more influenced by aircraft in the northern and eastern sections of the site and traffic in the southwestern section.

The MBTA Red Line rapid transit right-of-way does not influence the noise environment within the project area because the right-of-way is depressed and is sufficiently shielded by embankment and buildings.

3. Subsurface Characteristics

As was noted previously, the Columbia Point peninsula was originally only 14 acres of exposed tidal marshland, and has grown to its present size due to a series of landfill projects. For approximately 40 years, the easterly portion of the project site was an uncontrolled dump for refuse and combustible rubbish. Although the dumping terminated in 1962, there is a potential that unknown hazardous wastes may exist on-site.

A preliminary survey was conducted in 1983 to determine

NORFOLK

MEDFORD

MALDEN

REVERE

NAHANT

ROSLINDALE

BOSTON LOGAN AIRPORT

1982 DAY-NIGHT-NUISANCE

LDN 65,70,75,80

LYNN

SOMERVILLE

CAMBRIDGE

WINTHROP

BROOKLINE

BOSTON

SITE

FIGURE V-12
LOGAN AIRPORT
NOISE CONTOURS



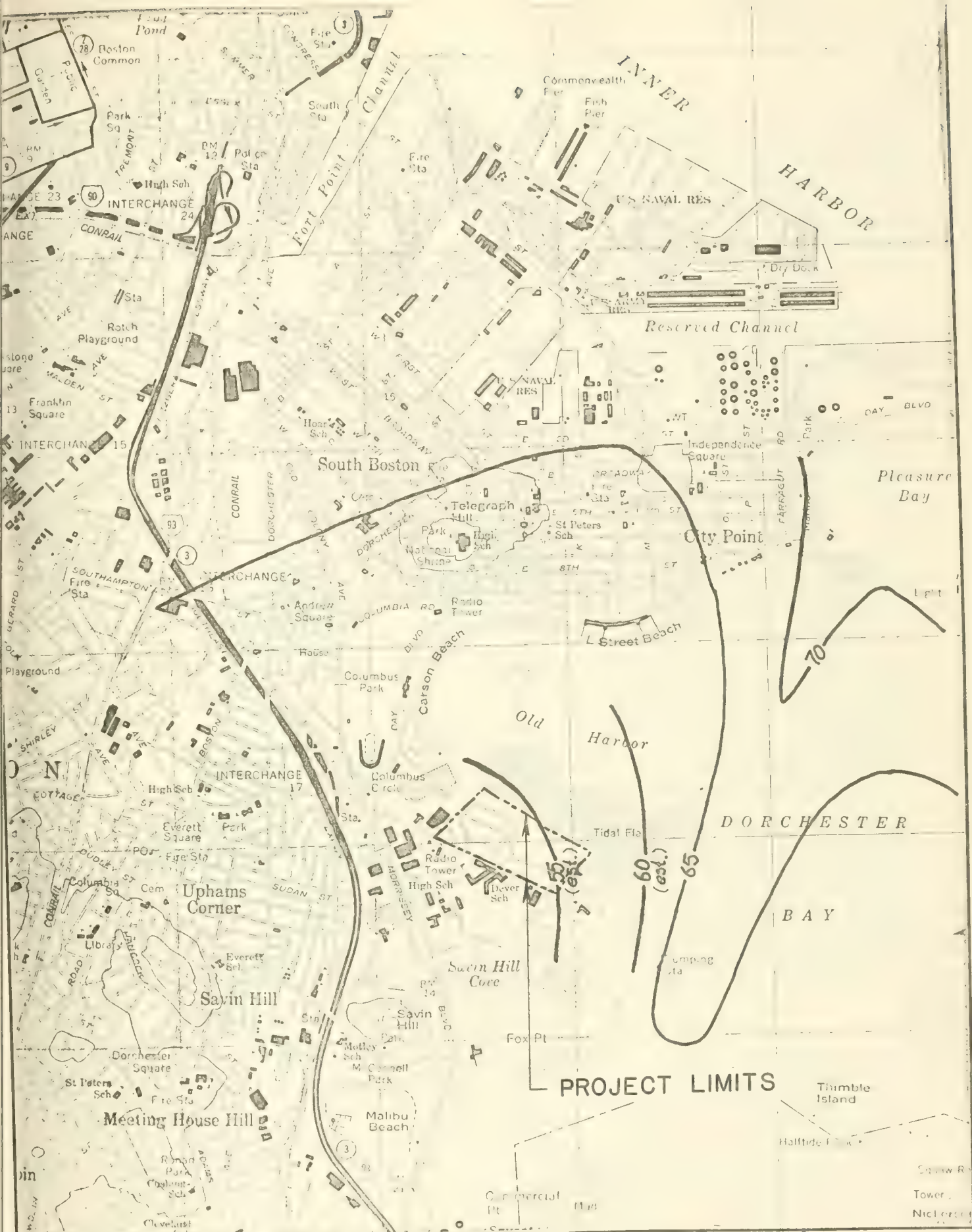


FIGURE V-13
EST. AIRCRAFT NOISE ON-SITE

H.W. MOORE ASSOC., INC.
CONSULTING ENGINEERS
BOSTON, MASS.

SCALE:
N.T.S.

subsurface conditions. The survey consisted of the drilling of ten (10) test borings within the housing site for soil analysis. In addition, a groundwater sampling and analysis program was undertaken to determine if the groundwater indicated hazardous wastes at the site. The study was conducted by New England Research, Inc. in coordination with the BRA, DEQE, Universal Engineering Corporation and Haley and Aldrich, Inc. (See Appendix H).

Groundwater samples were collected from all ten test boring locations at the Columbia Point project site (See Figure V-14). Various physical, chemical and biological tests were conducted on the test samples.

The results of the tests of physical parameters indicate that the groundwater is slightly alkaline and has moderately high values for specific conductance and salinity. In all probability, intrusion of seawater is occurring although the extent cannot be verified.

Analytical tests of the groundwater samples indicate levels of volatile organic pollutants on EPA's priority list above the detection limits. As requested by the DEQE, tests for acetone, methylethyl ketone, methylisobutyl ketone, and xylene were conducted, but no detectable levels were observed. Trace amounts of three of the eight pesticides and herbicides included in the EP Toxicity test of EPA (toxaphene, 2,4-D, and 2,4,5-TP Silvex) were detected. However, all three of these substances were detected only once, and at levels lower than those required to meet the characteristic of EP Toxicity under the hazardous waste regulations.

Trace amounts of five of the eight heavy metals included in the EP Toxicity test of EPA were observed (arsenic, barium, cadmium, chromium and lead). Again, all values were lower than those required to meet the characteristic of EP Toxicity. Iron and manganese were found in all the samples of groundwater at high concentrations. Iron levels ranged from 1710 to 3090 mg/l, while manganese ranged from 14.6 to 21.6 mg/l.

4. Tidelands

The Massachusetts Waterways Act, Chapter 91 of the Massachusetts General Laws, as most recently amended by Chapter 589 of the Acts of 1983, regulates use and development of "tidelands," present and former submerged lands and tidal flats lying below the mean high water mark. The Department of Environmental Management (D.E.M.) and the Department of Environmental

Quality Engineering, Division of Wetlands/Waterways Regulation (D.E.Q.E.) each have responsibility under the Waterways Act. This statute is relevant because much of the site of the Columbia Point Project is land that has emerged from filling Dorchester Bay. Most of this filling apparently took place before or at the time of construction of the existing Boston Housing Authority housing project. Copies of licenses and plans recorded in the Suffolk County Registry of Deeds, or filed with Suffolk County Registry District of the Land Court, reveal the approximate extent of the land licensed to be filled.

In May of 1938, the Department of Public Works issued a license to Mary E. Day (#1960) to build and maintain a bulkhead and to fill solid in Dorchester Bay, at her property there. This license later was assigned to Boston Edison Company. In 1945, the Department of Public Works granted Boston Edison Company a license (number 2729) to maintain filling as placed and to place additional solid fill in Dorchester Bay. In 1951, the Port of Boston Authority issued a license (number 185) to the Boston Housing Authority to place and maintain fill off Mount Vernon Street "in and over the tidewaters of Old Harbor Bay."

The area of approved fill shown on the recorded plans accompanying these licenses becomes smaller with each successive license. Thus, License and Plan Number 185, issued in 1951, approves filling of an area smaller than and entirely within the limits of Plan and License Number 1960, issued in 1939 (see Appendix I). This suggests that filling contemplated and approved in the earlier licenses was not completed. It also suggests that the area of filled land the Columbia Point proposal will occupy is less than the area described in fill requests already approved.

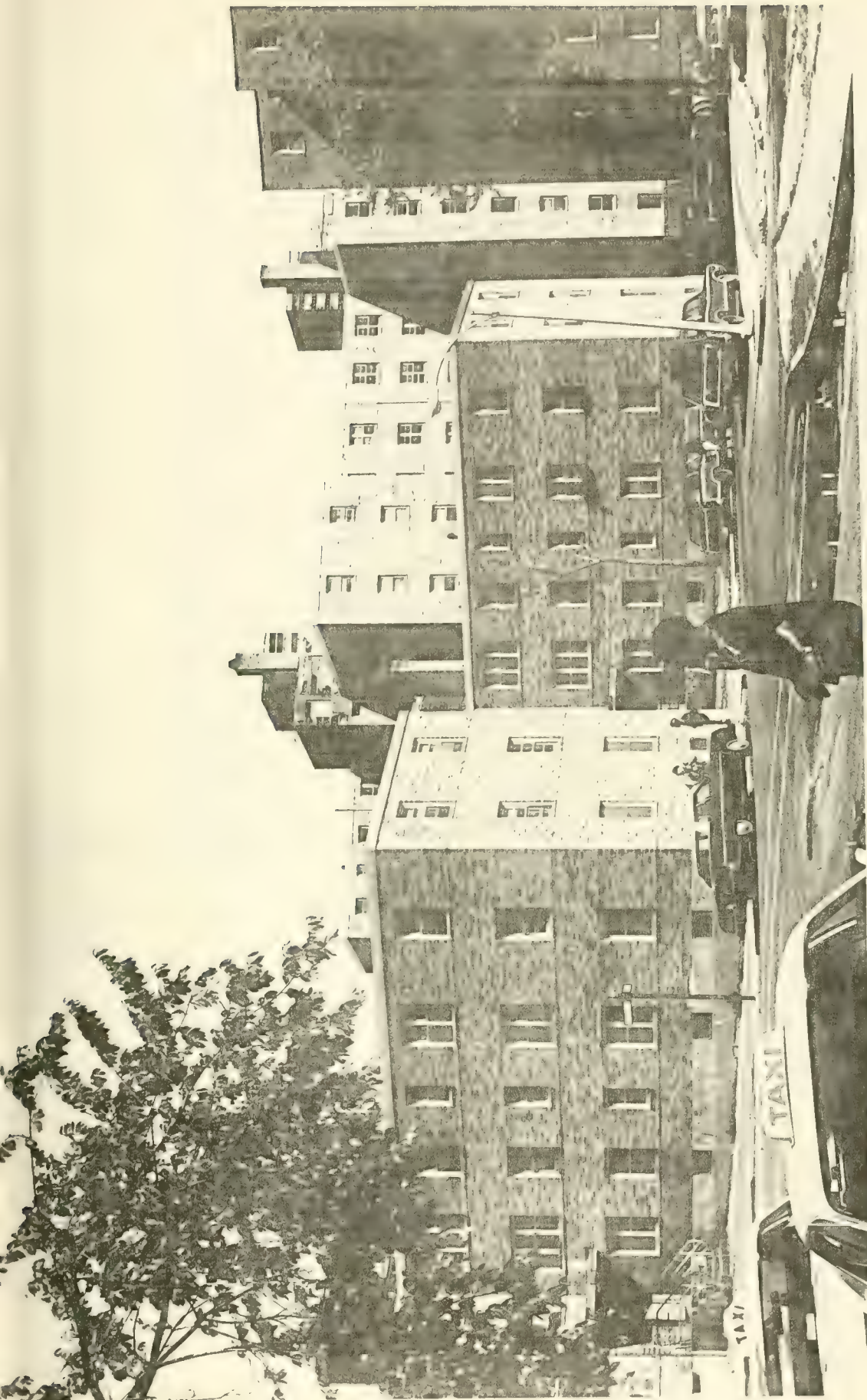


FIGURE V-15
Existing Buildings

E. AESTHETICS AND URBAN QUALITY

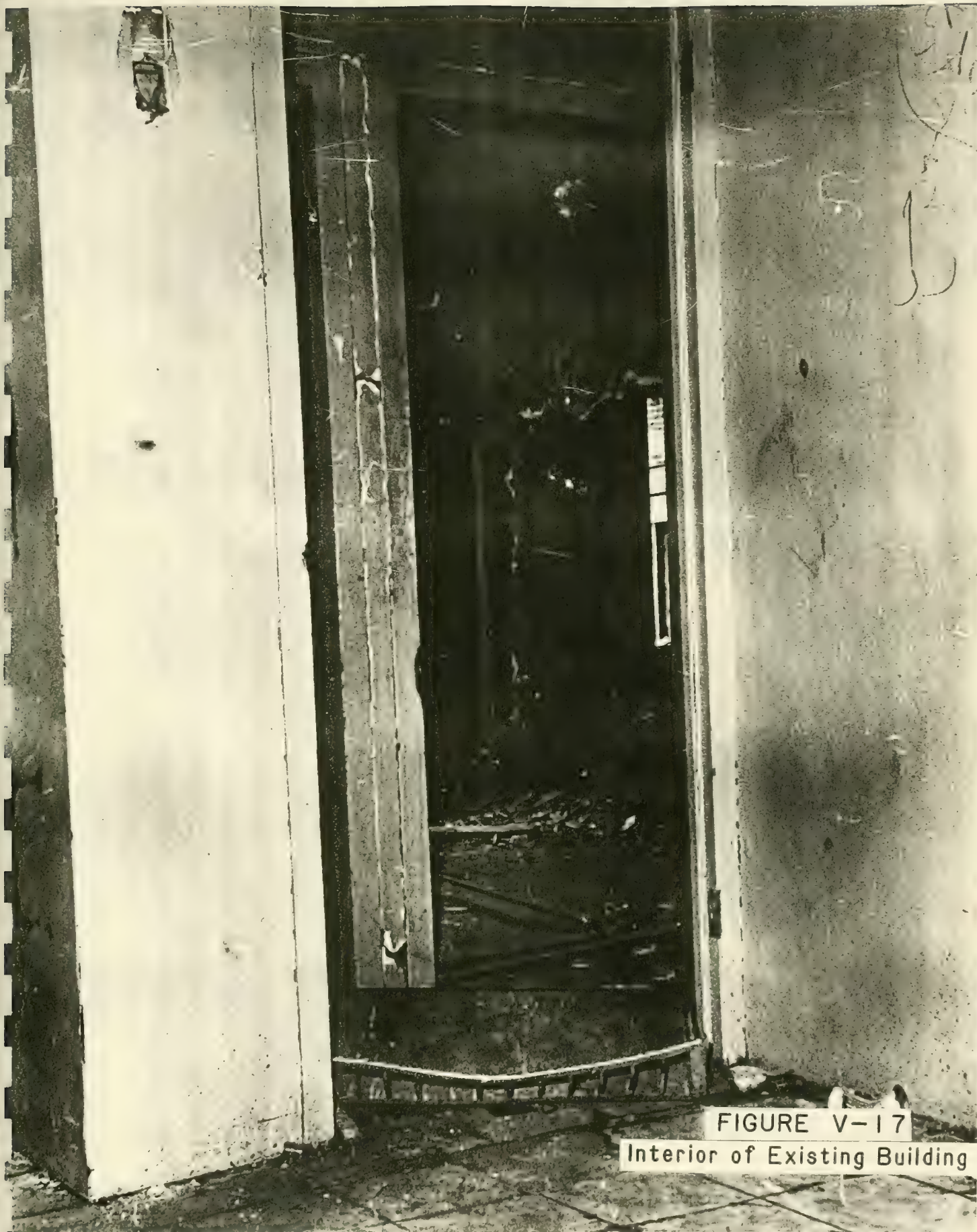
The existing aesthetic environment of the Columbia Point Peninsula is generally unattractive. While specific areas and buildings on the Peninsula are well planned and maintained, the number of separate institutional uses gives the entire Peninsula a disjointed image. Visually, the buildings are not compatible but rather stand as isolated entities.

Socially and economically, the institutions and businesses on the Peninsula operate, by and large, as independent entities. This lack of interdependence creates a sense of isolation. Furthermore, the lack of retail facilities and housing for employees of the businesses and institutions means that there is little pedestrian activity in the area. The nature of the land uses on the Peninsula are also areas that do not generate activity which keeps the area active at night.

The Columbia Point housing project specifically has had a negative impact on the image and the aesthetic quality of the Peninsula. Due to the physical deterioration of the buildings, landscaping, and site amenities, the project has a negative social image in the City (See Figures V-15 through V-17). The site plan is confused and creates the sense of a maze of tall buildings and canyons, a barrier against the waterfront. Additionally, the fact that Mt. Vernon Street is not a through street and that several buildings and properties other than the housing are not maintained further creates the image of an abandoned isolated area.



FIGURE V-16
Exterior of Existing Building



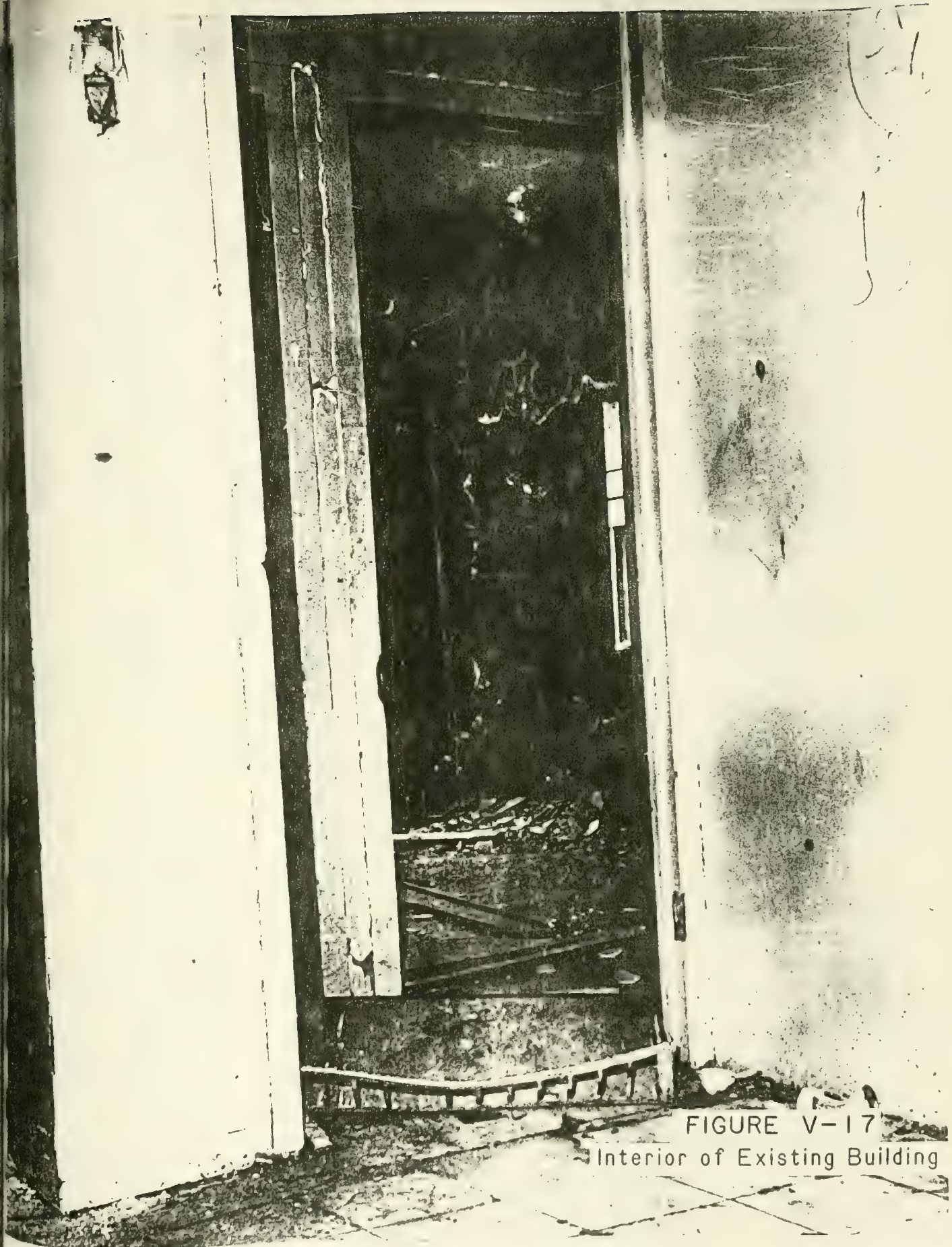


FIGURE V-17

Interior of Existing Building

PART VI

PROBABLE IMPACT OF THE PROJECT
AND ITS ALTERNATIVES
AND
MEASURES TO MINIMIZE ENVIRONMENTAL DAMAGE

VI. PROBABLE IMPACT OF THE PROJECT AND ITS ALTERNATIVES AND MEASURES TO MINIMIZE ENVIRONMENTAL DAMAGE

A. CONSISTENCY WITH POLICIES AND PLANS

1. Federal and Massachusetts Urban Policies

The National Urban Policy, announced in March, 1978, emphasized the strengthening of local economies, the creation of new job opportunities, and the revitalization of urban centers. Joint development, involving a partnership of government agencies and the private sector working in concert, is to play a major role in achieving the goals of this policy. Federal agencies have adopted this policy into their programs. The Department of Housing and Urban Development (HUD), for example, already had the Urban Development Action Grant (UDAG) Program, authorized by the Housing and Community Development Act of 1977 (P.L. 95-128). The purpose of UDAG was to assist "distressed" cities and urban counties that needed increased public assistance and private investment to alleviate physical and economic deterioration, promote the revitalization of communities suffering population emmigration or a stagnating or declining tax base, and reclaim neighborhoods experiencing housing abandonment or deterioration.

In addition, the 1974 amendment to the Housing Act of 1949, at 42 U.S.C. 1441, states:

"The Congress declares that the general welfare and security of the Nation and the health and living standards of its people require housing production and related community development sufficient to remedy the serious housing shortage through the clearance of slums and blighted areas, and the realization as soon as feasible of the goal of a decent home and a suitable living environment for every American family, thus contributing to the development and redevelopment of communities and to the advancement of the growth, wealth, and security of the Nation. The Congress further declares that such production is necessary to enable the housing industry to make its full contribution toward an economy of maximum employment, production, and purchasing power. The policy to be followed in attaining the national housing objective established shall be: (1) private enterprise shall be encouraged to serve as large a part of the total need as it can; (2) governmental assistance shall be utilized where feasible to enable private enterprise to serve more

of the total need; (3) appropriate local public bodies shall be encouraged and assisted to undertake positive programs of encouraging and assisting the development of well-planned, integrated residential neighborhoods, the development and redevelopment of sound standards of design, construction, livability, and size for adequate family life; (4) governmental assistance to eliminate substandard and other inadequate housing through the clearance of slums and blighted areas, to facilitate community development and redevelopment, and to provide adequate housing for urban and rural nonfarm families with incomes so low that they are not being decently housed in new or existing housing shall be extended to those localities which estimate their own needs and demonstrate that these needs are not being met through reliance solely upon private enterprise, and without such aid; ..."

The 1974 Act also states at 42 U.S.C. 144(a):

"The Congress finds that the supply of the Nation's housing is not increasing rapidly enough to meet the national housing goal, established in the Housing Act of 1949, of the 'realization as soon as feasible of the goal of a decent home and a suitable living environment for every American family'. The Congress reaffirms this national housing goal and determines that it can be substantially achieved within the next decade by the construction or rehabilitation of twenty-six million housing units, six million of these for low and moderate income families."

The Commonwealth of Massachusetts, through its Office of State Planning, also developed a comprehensive urban policy for the state in 1975, which emphasized the focusing of economic development in urban centers. Like the Federal policy, the Massachusetts Growth Policy stressed the cooperation of government and private developers in joint development projects, making public services and facilities available as an attraction for private development. These policies were further developed through an extensive citizen planning process established by the "Massachusetts Growth and Development Act" (Chapter 807 of the Acts of 1975). Broadly, the objectives of the State policy (which were never legislatively adopted) included: (1) the channeling of growth into developed rather than outlying areas, (2) the stimulation of private investment to enhance the quality of life, (3) the promotion of the conservation and efficient use of natural resources, (4) the expansion of the

availability of affordable housing opportunities, (5) the preservation of environmentally sensitive zones, and (6) state assistance and promotion of balanced growth and development.

The proposed Harbor Point housing redevelopment project is consistent with these Federal and State urban revitalization policies in several ways. The project will remove a blight from Columbia Point which, until the Exposition Center was developed in 1982-1983, inhibited private investment to the detriment of existing residents, institutions, and businesses at Columbia Point and the City as a fiscal entity. The creation of a new, mixed-income, racially-integrated community, with approximately 3,000 new Boston residents will reverse the process of deterioration which Columbia Point has experienced for nearly twenty years. The capital investment of \$170 million, of which over \$150 million will be private dollars, will significantly improve the quality of life for the 350-375 families who live there now, will create a highly desirable and affordable community for an additional 882 families, and will create new and important public access to Boston's shoreline. It will improve the City's tax base and create an environment at Columbia Point which will be suitable for future development on the site of the Calf Pasture Pumping Station and elsewhere. The project, as designed, will accomplish the above in a manner which conserves and efficiently uses natural resources and preserves environmentally sensitive zones such as the Dorchester Bay coastline.

2. Federal and State Housing Policies

The proposed redevelopment is also consistent with the Congressional mandate given to the U.S. Department of Housing and Urban Development in 44 U.S.C. 3531, which states:

"The Congress hereby declares that the general welfare and security of the Nation and the health and living standard of our people require, as a matter of national purpose, sound development of the Nation's communities and metropolitan areas in which the vast majority of its people live and work.

"To carry out such purpose, and in recognition of the increasing importance of housing and urban development in our national life, the Congress find

that establishment of an executive department is desirable to achieve the best administration of the principal programs of the Federal Government which provide assistance for housing and for the development of the Nation's communities; to assist the President in achieving maximum coordination of the various Federal activities which have a major effect upon urban community, suburban, or metropolitan development; to encourage the solution of problems of housing, urban development, and mass transportation through State, county, town, village or other local and private action, including promotion of interstate, regional, and metropolitan cooperation; to encourage maximum contributions that may be made by vigorous private home-building and mortgage lending industries to housing, urban development, and the national economy; and to provide for full and appropriate consideration, at the national level, of the needs and interests of the Nation's communities and of the people who live and work in them."

The proposed project is consistent with Federal housing policy in its furtherance of the goals set forth in preamble and broad objectives set forth at the beginning of the Housing and Urban Development Act; i.e., that it is the policy of the Federal Government to provide a decent living environment for all Americans. With regard to the demolition of public housing, the project is consistent with the regulations and policies set forth at 24 CFR 870.4 which provides that where the original design and concept of public housing projects fail to meet their objectives, demolition is justified.

The proposed redevelopment is also consistent with the Commonwealth's housing policies, as expressed in M.G.L. Chapter 23A, Section 1-2, which created the Massachusetts Housing Finance Agency and which states:

"It is hereby declared that as a result of public actions involving highways, public facilities and urban renewal programs, and as a result of the spread of slum conditions and blight to formerly sound neighborhoods, there now exists in many cities and towns in the Commonwealth an acute shortage of decent, safe and sanitary housing available at low rentals which persons and families of low income, elderly persons, and veterans who will be returning from Vietnam can afford. This shortage is inimical to the safety, health, morals and welfare of the residents of the Commonwealth and the sound growth of

the communities therein. The continued inadequacy of the supply of such housing inhibits the carrying out of needed slum clearance projects and results in the continued existence and proliferation of substandard and decadent housing, with all its attendant consequences of disease, crime, injuries, retardation of education, and high costs for municipal services, such as welfare, police and fire protection. The public exigency, emergency and distress has not been met in any way by private agencies. Private enterprise, without the assistance contemplated in this act, cannot achieve the construction of decent, safe and sanitary housing at rentals which persons and families of low income can afford in situations where permanent betterment of living conditions is to be hoped for. Moreover, experience has demonstrated that concentration of low income persons and families even in standard structures built with public subsidy does not eliminate undesirable social conditions and does not permanently eliminate slum conditions. It is therefore imperative that the cost of mortgage financing, which materially affects rental levels in units built by private enterprise be made lower so as to reduce rental levels for these low income persons and families, that the supply of housing for persons and families displaced by public action or natural disaster be increased, and that private enterprise be encouraged to build housing which will prevent the recurrence of slum conditions and assist in their permanent elimination by housing persons of varied economic means in the same projects and neighborhoods."

3. Federal and State Coastal Zone Management Policies

Federal coastal zone policy is expressed at 16 U.S.C. 1452, which states, in part:

"The Congress finds and declares that it is the national policy (a) to preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations, . . . "

The proposed project will restore and enhance the portion of the coastline which borders the project site. The redevelopment of the site will create public access to the coast which effectively does not exist today and which will be held and protected for the public benefit in perpetuity.

The proposed project plan is consistent with

Massachusetts Coastal Zone Management Policies, which encourages the revitalization and enhancement of existing development centers in the coastal zone through Federal financial support for residential and commercial development. In addition, the new waterfront park proposals are consistent with Policies 21 and 24, which promote the expansion of existing recreational facilities and development of new public areas for coastal recreation activities, the linking of existing coastal recreation sites to each other with trails for bicyclists and pedestrians, and the improvement of public access to such coastal facilities. The project will substantially increase the recreational use of this section of the Dorchester Bay shoreline as well as increase public access to the waterfront. (See letter dated September 28, 1982 to Richard B. Mertens from Richard F. Delaney in Appendix J). A detailed discussion of the Chapter 91 Licensing process can be found in Section VI.E.4.

4. State Comprehensive Outdoor Recreation Plan (SCORP)

The plan's provision for regional public access to a newly-created waterfront park which will complete the Castle Island-Tenney Beach MDC park system is thoroughly consistent with SCORP. This park will provide bicycling, jogging and picnicking facilities, which are among the SCORP's highest priorities, particularly as part of a regional and metropolitan park system (See Appendix K).

5. Local Plans and Policies

- a. The Harbor Point project is in conformity with the 1965/1975 General Plan for the City of Boston and the Regional Core, as adopted by the Boston Redevelopment Authority in March, 1965. Specifically, the plan implements the still relevant portion of the General Plan's policies on Housing and Recreation Spaces, which are to create affordable, mixed-income housing and to continue public access along the waterfront from Castle Island to Tenney Beach.
- b. The project plan is consistent with the City of Boston's Three-Year Housing Assistance Plan (HAP) submitted to the U.S Department of Housing and Urban Development pursuant to 24 CFR 570.306. The HAP calls for the preparation of "Urban Development Action Grants... to finance or leverage housing development" and "writing down the cost of public buildings/land in those cases where they will be

utilized for development of affordable housing". The management aspect of the development plan is consistent with the HAP in that the existing low-income tenants at Columbia Point will have a substantial and meaningful role in the management of the new development. The marketing aspect of the development plan is also consistent in providing for affirmative action outreach in the marketing of the new moderate-income and market rate units to be developed. Finally, Columbia Point is designated by the HAP as an Acceptable Location for Federal/Local Assisted Housing.

- c. In 1984, the BRA proposed new zoning and design standards to govern development along Boston's waterfront. This planning effort, known as Harbor Park, created an advisory board to review waterfront development in order to assure a project's consistency with Harbor Park's goals and objectives.

Although the development team received tentative BRA designation as Columbia Point's developer in October 1983, it was agreed that the Harbor Point proposal would be subject to a review under the new Harbor Park plan. As part of that process, a presentation of the developer's plans was made to the BRA's Harbor Park Advisory Committee. Issues of concern raised at that meeting included building locations and heights adjacent to the waterfront, separation of public/private space, and the configuration of the private recreational facilities.

As outlined in a July 8, 1985 letter from Stephen Coyle, BRA Director, to DEQE (Appendix I), the BRA had requested that the developer make several changes to the Harbor Point plan in order to assure consistency with Harbor Park. These changes included:

- considerable enlargement of the waterfront park area, including increasing the minimum public easement from 30 feet to 50 feet and substantially increasing the size of the park node at the eastern point.
- the moving of buildings back from the waterfront, in particular the eastern and western mid-rises. It should be noted that the one new seven-story, the two six-story mall buildings and the six three-story townhouses

that replaced the midrises maintain these required setbacks.

- the rotation of the tower elements on several of the mid-rise buildings away from the waterfront;
- the reduction in building height. Obviously, due to the replacement of the midrise buildings with mall buildings and townhouses previously noted, the building heights are further reduced.
- the consolidation of the clubhouse/pools area.

Other changes to the site plan made at the BRA's request included redesigning the parking lots to provide more open space and the provision of structured parking to reduce the amount of on-site paving.

In addition, Harbor Park's goal of providing more mixed-income housing units along the waterfront is met by Harbor Point's inclusion of 400 low income units. Based upon these changes and the project's overall consistency with Harbor Park and other BRA policies, the BRA's Board of Directors designated the site a Planned Development Area (PDA), thereby approving the design plans and concept. This action took place on June 13, 1985.

The replacement of the four stepped-midrise buildings with seven- and six-story mall buildings and townhouses has been presented to the BRA. With these design changes, the plan is still consistent with the city's Harbor Park plan.

- d. The new development will be subject to City of Boston requirements to achieve certain goals in both construction and permanent employment. The Neighborhood Development and Employment Agency, Boston Redevelopment Authority, Boston Housing Authority and Massachusetts Housing Finance Agency will be jointly responsible for enforcing those requirements and assisting the developer in achieving the City's goals.

B. LAND USE AND DEVELOPMENT

Essentially, the proposed Harbor Point will have three impacts on land use and development at Columbia Point: (1) portions of four parcels of land currently owned by the City of Boston which are designated for park and recreational use will be returned to BHA ownership and leased for private residential and recreational use; (2) portions of the same four parcels will be transferred to the MDC for a public waterfront park becoming part of a system of public open spaces along the edge of the harbor beginning at Castle Island and extending to Tennean Beach; and, (3) additional future development to the east of the development site on land owned by Boston Water and Sewer Commission and the University of Massachusetts will probably be encouraged as a result of the elimination of the blight of the development site.

1. The Housing Site

The proposed redevelopment scheme would use the existing project site and portions of four parcels of City owned land for the construction of new housing and private recreational amenities. Combined with a net reduction of 222 units of housing, this will result in the development having a lower per acre density than currently exists, and available land for the construction of amenities. Both of these factors, reduced density and improvement of amenities, are considered to be essential for the successful revitalization of Columbia Point.

The housing site will be leased to the private developer for 99 years and will contain 1282 residential units together with recreational facilities for all of the residents of Harbor Point. These facilities will include tennis courts, swimming pools, basketball courts, and several neighborhood play areas and will be located throughout the present site. Not only will this make them accessible to all residents, but it will also make supervising by residents and security patrols easier. The construction and long-term maintenance of these facilities is part of the developer's project costs. Use of the project recreation facilities will be included in the rent so that the facilities will be available to residents of all incomes without additional charges. These facilities are more fully described in Part III.

In order to convert City recreational land to housing, certain approvals must be obtained from various governmental agencies, including the Boston Parks and

Recreation Department, the Massachusetts Department of Environmental Management, and the National Park Service, which provided the initial funding for recreational improvements in 1974. In addition, it may be necessary for the Boston City Council to act to surplus the property. The Massachusetts Legislature has already issued its approval under Chapter 97 of the General Laws.

Numerous meetings have been held, and various agreements reached, concerning the new waterfront park. These actions are detailed in the following section. A plan for developing replacement public facilities on the Peninsula is being developed by these groups.

2. Waterfront Park/Public Recreation Facilities

Regarding the waterfront edge, the intention is to create a new waterfront park which would start at Mother's Rest, go across Bayside, Harbor Point, BWSC and UMass land, and connect to the walkway system at the JFK Library. This would fill a major link in the regional waterfront park system which begins at Castle Island and ends at the Neponset River. Since all but the JFK Library and UMass sections belong to the Metropolitan District Commission (MDC), it is proposed that the park adjacent to Harbor Point be designated as an MDC park.

The long-term comprehensive plan for the waterfront park around the Peninsula calls for : 1) improvement of the Mother's Rest site between Carson's Beach and the Bayside Exposition Center; 2) development of a portion of the Bloom parcel adjacent to the Expo Center as a park node; 3) continuation of the public park along the waterfront edge of Harbor Point, gradually widening and narrowing to create a "necklace" of passive recreation areas strung together by a bicycle/foot/maintenance access path; 4) the retention of both waterfront and inland areas on BWSC and U-Mass property as parkland and their development as "urban wilds" or other recreational facilities; 5) connection of the newly created park to the existing waterfront access at the JFK Library; 6) reconstruction of the rip-rap along this entire edge; 7) rehabilitation of the two small beaches; and, 8) preparation of a long-term plan to provide parking facilities at either end of the park.

It should be noted that even though the development of a portion of this new park is included as a part of Harbor Point's overall plan, the park will be part of a regional public park. Therefore, it will be separated

from the Harbor Point community. MDC signage will clearly delineate the public and private areas. MBTA buses will be routed through the site to the end of the mall in order to facilitate access to the new park, as well as to other areas of Harbor Point.

In order to plan and design the new park, the development team and the BRA have retained Carol Johnson Associates as the park's planners. The first phase of the park's development has been a study of existing waterfront parks in the Boston Area. Three major characteristics of the parks found in that study shaped the design of this park. They are linear parks, clearly defined edges, and the linkage between large nodes and small open spaces.

As stated above, the first characteristic is the significance of linear waterfront parks. Thus the chief value of this park was seen not as an isolated recreational area on the Boston shoreline, but as a means of the connecting the existing, but isolated, public portions of the waterfront from Castle Island to the Neponset River, creating one vast linear waterfront park.

The second characteristic of the existing waterfront parks that provided a major directive to the design of the park is the importance of clearly defined boundaries or edges. In almost all existing linear parks the boundaries are defined by a public road which parallels the water, providing a clearly defined area for use and enjoyment. In order to incorporate this characteristic at Harbor Point, the Project's roads roughly parallel the water's edge through the majority of the site. However, a road will not be used to separate the clubhouse/pool from the public area, since it was felt that this would become an artificial barrier to the park's size. Rather, planting and fencing will be used to differentiate the private facilities from the public park.

The final characteristic is the pattern of larger nodes strung together by longer, narrower portions of open space thus creating a linear park. At Harbor Point a condensed version of this pattern will be developed. Three large open areas are connected by relatively short stretches of land to create a varied but continuous park.

Another suggestion for the design of the park developed from a review of the existing portions of this particular linear park. Along this portion of

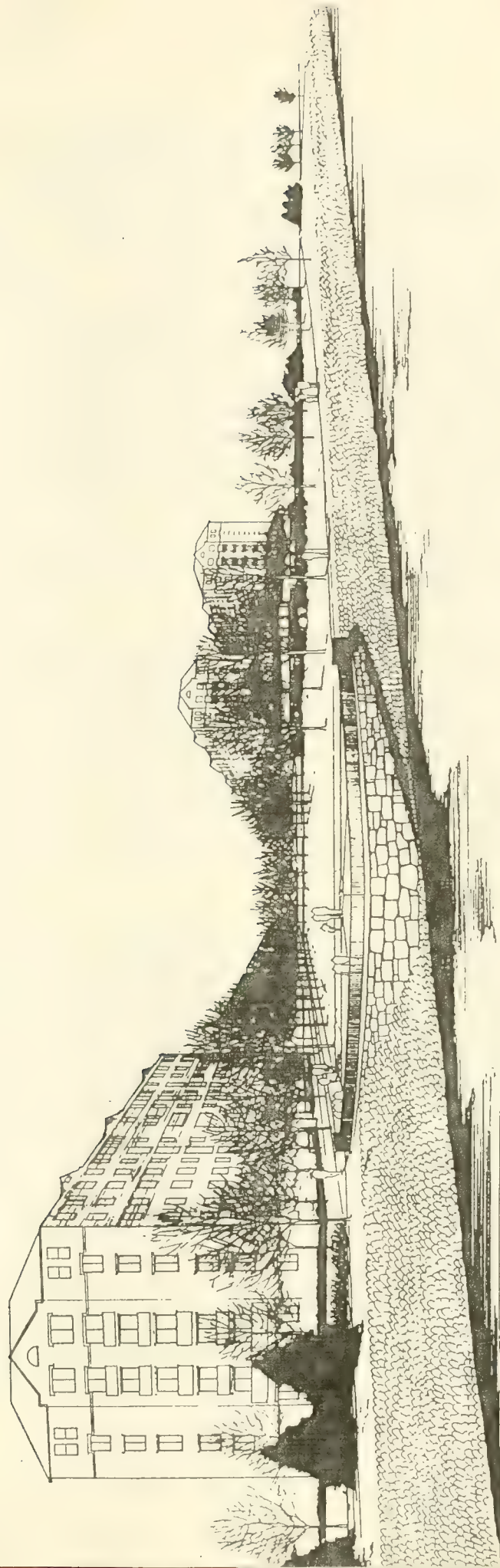
Dorchester Bay exists a pattern of structures or "events" along the waterfront between the main promontories. For example, the Mother's Rest at the end of Carson Beach and the Kennedy Library's Terrace both provide destination points or features. Harbor Point's proposal envisions another such feature, a viewing terrace. This terrace, which will provide a panoramic view of the Bay and Harbor Islands, will serve as a unifying feature located where the the public park meets the Town Green/Mall - the heart of the new community. The intention is to create an area where public and private activities can occur jointly. The viewing terrace will be a focal point for the public park and the private community. In addition, a large open space for informal games and other activities is planned between the viewing terrace and the Mall (Figure VI-1).

Lastly, a recognition of the highly successful planting at the Kennedy Library suggests an opportunity to not only use plants which are known to thrive on the waterfront and which had positive associations for those who know and enjoy the library, but also to unify the entire length of the park with one major plant palette. Thus, the portion of the park at Harbor Point, by using the plant palette from the Kennedy Library, will initiate the unification of the waterfront.

Analysis of the site itself directed the refinement of the park's design. Summer breezes, which along with the sight lines through the community follow the roadway, are unimpaired by tree planting where the roadways meet the park. While the vigor of the existing trees on the site and other trees along the waterfront would suggest that careful plant selection will produce a high survival rate, the harshness of the winter winds which will flow the length of the park is acknowledged by the planting of trees in naturalistic clumps rather than in formal lines which would call attention to the loss or damage to the plantings. Spring and fall winds along the length of the park also suggest the clumping of trees and the location of benches on their leeward side and the shaping of the ground plane to form "bowls" oriented to the harbor with the change in grade providing wind protection for those seated on the ground. Shadow studies suggested the placement of picnic tables for evening use and prompted the development of the viewing terrace into a terrace where day-long sun could be enjoyed nearly year-round.

Existing erosion at the waters edge suggested the need for rip-rap reconstruction. The idea of repairing only





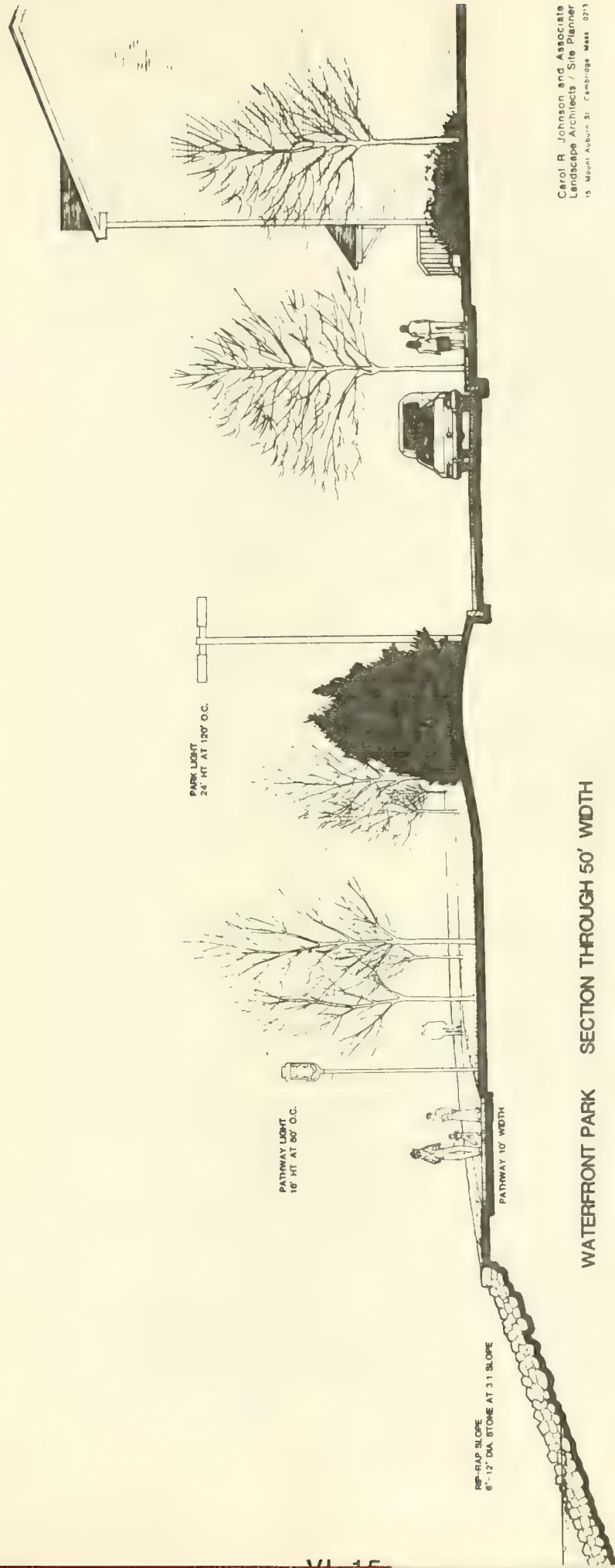
WATERFRONT PARK PERSPECTIVE OF VIEWING TERRACE

the rip-rap which had been eroded was rejected, instead the decision was made to excavate and replace the entire half-mile length. Two alternative methods of conducting the excavation and replacement were considered. The first would be to use a finish of dumped stone similar to the Bird Island Flats reconstruction. A second alternative was to provide placed stone similar to the U-Mass/JFK shoreline material. The latter alternative was selected. However, it is not the intention of this project to have rip-rap as steep as at U-Mass/JFK. In addition, the careful placement of large blocks to form steps down to the water will occur at two points for fishing access. The proposed elevation at the top of the restored rip-rap is slightly less than is existing to permit the manipulation of the ground plane of the park for drainage, creation of wind-protected areas and formation of knolls at the three main spaces while still adequately protecting the park against erosion.

As part of the rip-rap reconstruction, the shoreline will be straightened to allow placement of stone and to give the edge a more urban character. The beach areas proposed at either end of Harbor Point will obviously require a separate treatment, and transition from the placed stone edge to the beach's edge will be carefully studied. In order to protect the proposed beach areas from erosion it will be necessary to extend the point at the eastern edge of the site. The beach areas will also receive additional sand to improve their condition.

The existing pavement at the water's edge will be replaced with a ten foot wide path to accommodate maintenance and emergency vehicles, bikers, joggers, and pedestrians (Figure VI-2). The path will follow an alignment that gently moves back and forth between the water's edge and the road, creating spaces at the water's edge and the inland side of the path. Between these spaces, where the path passes through the middle of the linear park, and in association with tree planting for wind protection, will be benches facing the water. At the edges of the site the path will be taken to the property line for future connection to the adjacent links in the waterfront park.

With the selection of a tough drought and salt resistant grass, the open lawn areas will be able to accommodate a large number of people in a wide variety of activities. Further soil analysis will indicate the particular needs of the trees to be planted at the waterfront. Where a greater quantity of good soil



WATERFRONT PARK SECTION THROUGH 50' WIDTH

Carol R. Johnson and Associates
Landscape Architects / Site Planner
15 Mount Auburn St. Cambridge, Mass. 0213

FIGURE VI-2

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backfill has been found in other similar waterfront fill sites, the situation has been remedied by the use of extra large tree pits. Evergreen and deciduous trees will be planted the entire length of the park to unify the waterfront. Shrubs will be planted in islands created where the path approaches the road and in planting beds at the pool fence and the two stepped midrises.

Analysis of the scenic context for the park directed the orientation of benches and picnic facilities and suggested a system of interpretive features for the park. The viewing terrace's role as a focal point could be reinforced with a bronze map of the peninsula and harbor imbedded at its center. Distance markers could be applied to or imbedded in the pathway referencing the distance to and from either end of the waterfront park, thereby creating another unifying element. Devices for directing views, whether in the pavement or at eye height, combined with written text could be placed at intervals throughout the park continuing the themes of natural forces, geography, transportation and history established by the Harbor Islands Master Plan.

Finally, in the interest of public and community accessibility and safety, the park will be well lighted. Employing a combination of high-mounted street light and the typical Boston waterfront fixture for accent, the successful lighting of this new waterfront park will do much to identify it as clearly different from the deteriorated existing recreational areas and to associate it with the positive images of waterfront parks in the Boston area.

As discussed previously, it is proposed that the MDC will construct, own and operate the park. The development team has agreed to pay for the design of the park adjacent to Harbor Point and appropriate levels of funding to accomplish this will be requested from the Legislature as soon as a final design for the waterfront park is approved. In addition, the developers will also enter into a long term maintenance agreement with the MDC.

Regarding active public recreation facilities, the BRA has taken the lead in obtaining National Park Service approval of the change in use of city owned parcels and in evaluating the need for additional public recreational land and/or facilities on the peninsula. As part of this process the BRA has met with the agencies involved to discuss the various issues raised by the proposed change in use. In addition, the BRA

will conduct a review of the need for recreation facilities on Columbia Point and the possibility of making existing facilities at U-Mass, B.C. High School and other peninsula institutions available on a shared basis for the public. A task force is being established by the BRA made up of the agencies, tenants, developers, and neighbors which will identify and evaluate alternative uses for replacement of an active recreation area.

It is also expected that the City and State will enter into a Cooperation Agreement to formalize their commitment to the construction of additional public active recreation facilities on the Peninsula. One plan for active recreation, which was originally prepared in 1979 for the opening of the Kennedy Library, proposes construction of a new Mt. Vernon Street recreational facility on land currently owned by the Boston School Department and the Boston College High School. This facility would include softball fields, tennis courts, basketball courts, victory gardens, and related parking facilities. Other alternative sites utilizing the BWSC or U-Mass land adjacent to the JFK Library are also being studied by the BRA and its task force.

After an assessment of the need for additional recreational facilities on the Columbia Point peninsula is complete, planning will continue to address the identified needs and to find specific funding sources and locations for such facilities. The BRA will continue to take the lead responsibility for coordinating this planning effort and for obtaining the necessary approvals and funding in a timely fashion. It is also expected that the above mentioned Cooperation Agreement will address the critical issue of funding for the facilities. Further discussion of these issue is contained in Section IV-E4 regarding Chapter 91 licensing.

3. Future Development at Columbia Point

The success of the Bayside Exposition Center has already generated renewed interest in the future of Columbia Point. The further elimination of blight on the public housing site will presumably clear the final barrier to future development on Columbia Point.

One development project currently in the planning stages involves the expansion of the Bayside Exposition Center. Current plans include the construction of 175,000 s.f. of new retail, office, and exhibition space. Construction is scheduled to begin in the Spring

of 1986.

Although no proposals have been made for any additional development on Columbia Point, it has long been contemplated that the Calf Pasture Pumping Station might be converted into a public or quasi-public multi-use facility. That facility is controlled, however, by the Boston Water and Sewer Commission and can only be converted with their approval and cooperation.

The parcel between the Calf Pasture Pumping Station and the JFK Library is under option by the University of Massachusetts and will be developed by the University according to its needs and capabilities. Most of the rest of the land on Columbia Point is controlled by either the University or Boston College High School. Thus, most future development will be limited and/or controlled by these two entities.

Further discussion of proposed future development on the peninsula is provided in Appendix S.

C. TRANSPORTATION FACILITIES

The following discussion on the future transportation network at Columbia Point is based on a study prepared by the Boston Redevelopment Authority entitled, Impact Assessment of Proposed Street Improvements, dated September, 1985 (see Appendix P). This report evaluated traffic conditions in the study area along with projections of vehicular increases due to all future developments on Columbia Point. Since the impact of traffic from all these projects are closely interrelated, the following discussion and conclusions pertain to the total development on the peninsula. It should be noted that the BRA analysis was based upon a 1400 unit development and therefore is conservative.

1. Roadway Improvement Assumptions

In correctly assessing the combined traffic impacts of all proposed developments on Columbia Point, it is necessary to review planned or suggested roadway improvements in the study area. On the Columbia Point peninsula, there are three known locations which have been identified for potential improvement. The three areas and the recommended solutions are as follow:

1.1 Day Boulevard Connector

To travel from the Southeast Expressway to Mt. Vernon Street requires traveling from the off-ramps onto Columbia Road to Kosciuszko Circle. From the rotary, motorists travel on a short section of Day Boulevard and must negotiate an awkward right turn onto a connector road between Day Boulevard and Mt. Vernon Street. The reverse routing from Mt. Vernon Street to the Expressway is similar except that the left-turn from Day Boulevard Connector toward Kosciuszko Circle is even more difficult for motorists.

This entrance to the northern half of Columbia Point presently experiences capacity deficiencies and encourages the use of Day Boulevard (and L and Summer Streets) through South Boston by motorists destined for downtown Boston from the Southeast Expressway.

Two alternatives for the treatment of this connector are proposed. The first alternative, Alternate A, has been suggested and is preferred by the BRA and others while Alternative B is proposed by the MDC. The major difference between the two

alternatives is that A maintains the connector as a two-way link while B is proposed for one-way travel from Day Boulevard to Mt. Vernon Street. The two alternatives are both shown in Figure VI-3.

Alternative A calls for a re-channelization and offsetting of the Morrissey Boulevard northbound off-ramp to direct traffic either left or right. This would eliminate the Kosciuzsko Circle by-pass via the Day Boulevard Connector. Alternative B would direct all traffic from Mt. Vernon Street to Day Boulevard or Kosciuzsko Circle and beyond to travel via Old Colony Boulevard.

Alterations to the Day Boulevard end of the connector would involve relatively minor adjustments in channelization, signs, signals and pavement markings.

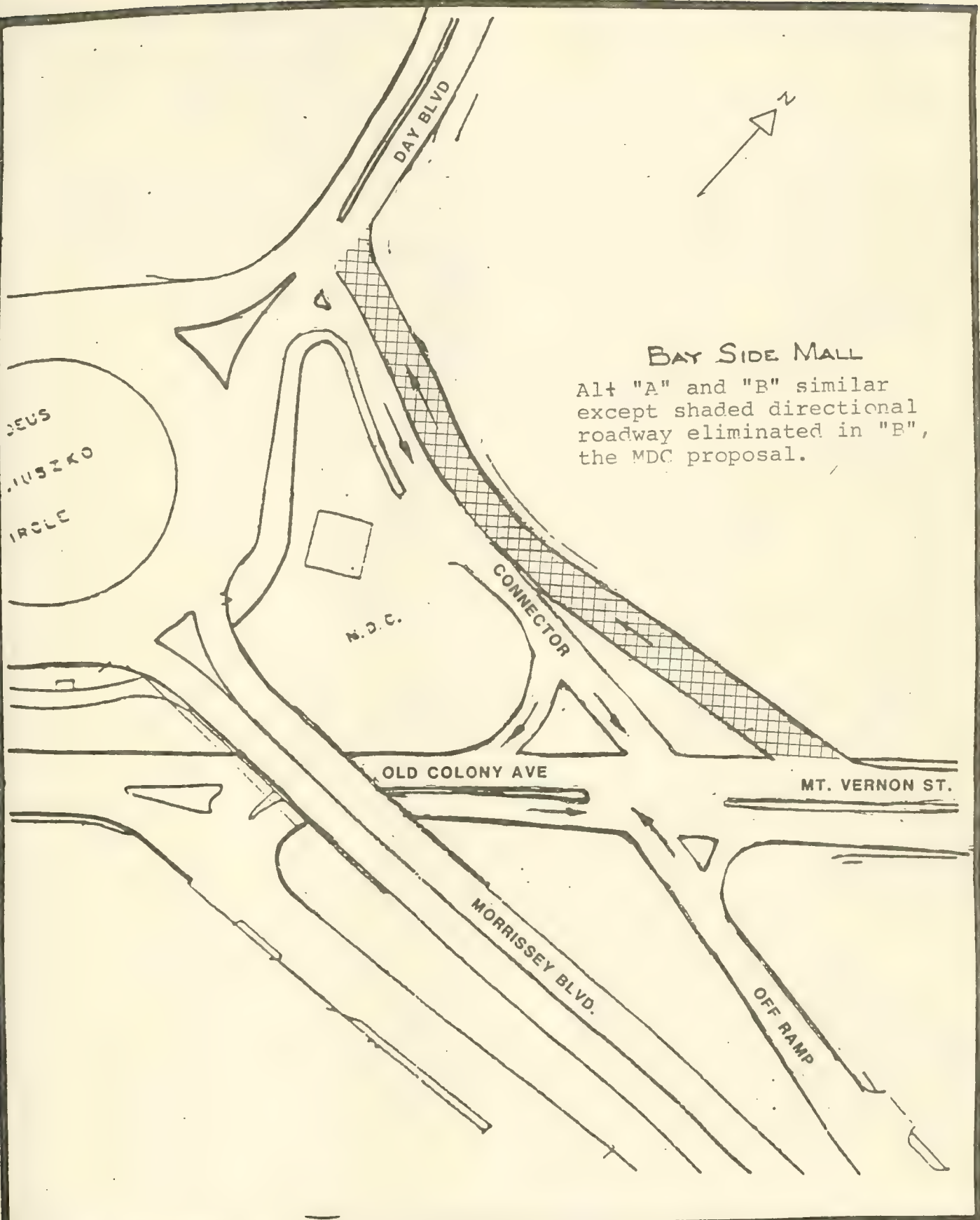
1.2 Mt. Vernon Street/U-Mass Roadway Connection

Mt. Vernon Street presently is a dead-end roadway with no connection to the U-Mass campus or the JFK Library. Thus, the residential and commercial facilities to the north are isolated almost entirely from the institutional land uses to the south. For an improved functional and perceptual integration of the peninsula, as well as increased circulation options, it is proposed to construct a short two-way connector between the U-Mass one-way roadway and Mt. Vernon Street as shown in Figure VI-4.

1.3 Mt. Vernon Street Reconstruction

The existing 80-foot right-of-way of Mt. Vernon Street consists of a 66-foot roadway with 7-foot sidewalks. In certain sections, the roadway is divided by a 6-foot median. Mt. Vernon Street beyond the Expo Center is excessively wide for the existing and future traffic volumes, particularly when improved pedestrian facilities and landscaping would enhance the functioning and appearance of the immediate area.

The proposed cross section of Mt. Vernon Street calls for the non-roadway area to be evenly divided on each side of the street, allowing for landscaping and widened sidewalks. The raised median will be eliminated except in the vicinity of the Bayside Expo Center where the roadway design will accommodate Expo Center access and higher traffic volumes.

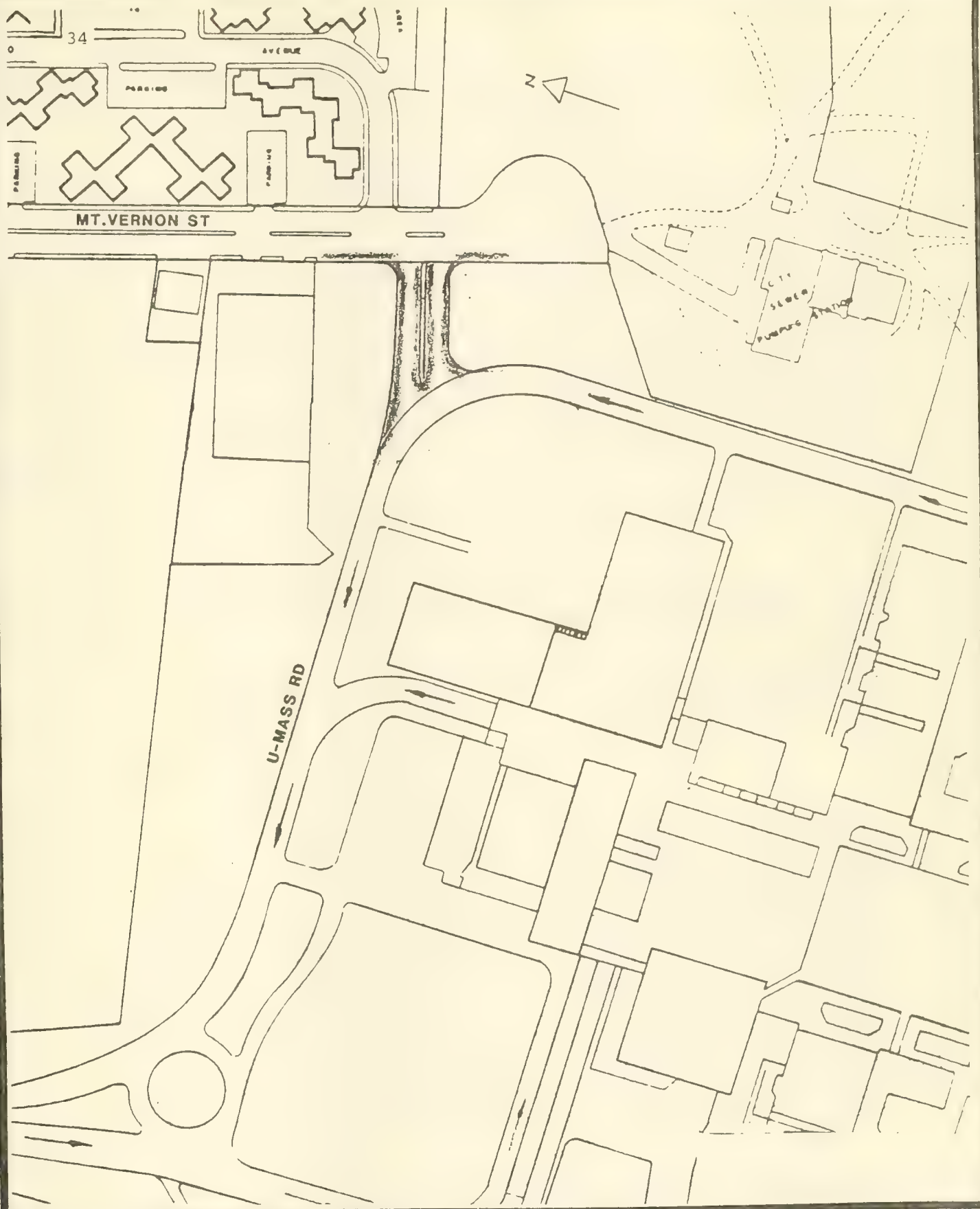


**COLUMBIA POINT PENINSULA
REVITALIZATION PROGRAM**

boston redevelopment authority
transportation planning department

DAY BLVD CONNECTOR
Alternatives "A" & "B"

FIGURE VI-3



**COLUMBIA POINT PENINSULA
REVITALIZATION PROGRAM**

Short Connector to Existing
U-Mass Roadway

boston redevelopment authority
transportation planning department

FIGURE VI-4

2. Traffic and Vehicular Circulation

2.1 Traffic Projection Methodology

Future traffic generated by proposed developments on Columbia Point, including Harbor Point, was estimated by applying appropriate trip generation rates for the various facilities proposed. Then, these trips are assigned to the available transportation network. This generated traffic is added to existing traffic levels after a factor is applied to account for growth which would occur apart from the proposed developments. For this study, traffic has been increased by 1.0% per year from the base year (1984) to the future design years (1990 and 2000). The estimation of the trips generated by the proposed facilities on Columbia Point includes the following steps:

- o Person trip generation, by employee and non-employee
- o Peak/off-peak period distribution
- o Modal split
- o Vehicle occupancy rates
- o Trip distribution to approach corridors
- o Trip assignment to transportation facilities

These steps, as applied to the proposed developments at Columbia Point for various periods in a typical day, are set forth in a number of tables and are discussed below.

2.1a Person Trip Generation

The proposed future developments on Columbia Point are noted in Table 7. The major new traffic generator will be the 1000 additional housing units at Harbor Point which, when combined with the existing 400 units, will yield a future residential community of 1400 units. For multi-unit residential developments, an Institute of Transportation Engineers' study (Trip Generation, 3rd. ed.) has shown that vehicle trip arrival rates ranged from 0.3 to 6.2 per unit per day in the developments surveyed. A value of 4.8 person arrivals is used in this study, corresponding to a vehicle arrival rate of 2.14, or the average for high-rise apartments in the ITE study.

The office and retail/commercial generation

Listed below are the proposed development programs associated with each impact assessment year. The year 2000 of course includes the development established for 1990.

TABLE 7 - Columbia Point Development Program

New Development by 1990:

Bayside Expo Center (Expansion)

800-space parking garage

300,000 square feet office and/or exposition space

20,000 square feet retail for Expo Center activities and nearby residential

Public Housing Site

Mixed residential housing - 1400 units

(Of the above, about 400 units are currently occupied. The housing development is expected to have 400 low income, 500 moderate income and 500 market rate units).

Additional New Development by 2000:

Calf Pasture

200-room hotel, assumed for traffic generation purposes

40,000 square feet retail for U-Mass/JFK/State Archives/Hotel or Residential/Expo/Visitors

rates were based on findings contained in the 1972 Wilbur Smith & Associates report entitled, Access Oriented Parking Strategy. However, the generation rates for the retail/commercial land uses could overestimate the actual trip generation, as it is expected that many of the customers would be induced from other facilities on the peninsula. Since it was assumed that the retail/commercial use would be more closely associated with the Expo Center, the generation rate was arbitrarily reduced by approximately 15% (15.3 vs. 18.3 person arrivals per 1000 sq. ft.) to account for this induced traffic.

The office rate of 7.3 person arrivals/1000 sq. ft. reflects the minimum private office rate contained in the Wilbur Smith study. A minimum rate was chosen due to the probable lower employee density outside of the downtown Boston area and the uncertainty as to whether some of the office area might be used instead for expanded exhibition space.

The hotel generation rate of 4.6 person arrivals per room was based on the Copley Place Transportation Impacts Study of 1980 and the North Station EIR, 1983.

Table 8 presents a summary of the anticipated average weekday person trip generation from the proposed developments at Columbia Point.

2.1b Peak/Off-Peak Period Distribution

Within the typical daily travel period, it is necessary to establish travel variations with respect to time. In particular, it is necessary to determine trips during the peak hours as opposed to the off-peak hours. In order to determine the time distribution of traffic, it is necessary to assess the proposed developments with respect to various schedules.

The percentages of average daily trips occurring during morning and evening peak hours as well as a mid-day off-peak hour (1:00-2:00 P.M.) are shown in Table 9 by employee and non-employee and by activity. The office space is assumed to be open during normal business hours with the employees

TABLE 3

COLUMBIA POINT AVERAGE WEEKDAY PERSON TRIP GENERATION1990 Phase I

	<u>Development Program</u>	<u>Arrival Rates Per Day</u>	<u>Daily Person Arrivals</u>
Retail/Commercial	20,000 sq. ft.	15.3 per 1,000 sq. ft.	306
Office	300,000 sq. ft.	4.9 per 1,000 sq. ft.	1460
Residential	1000 units	4.8 per unit	4800
		Sub Total	6566

2000 Phase II

Retail/Commercial	40,000 sq. ft.	18.3 per 1,000 sq. ft.	732
Hotel	200 rooms	4.6 per room	920
		Sub Total	1652
		TOTAL	8218

NOTE:

Total Addition Development Person "Arrivals and Departures" = $8218 \times 2 = 16,436$

TABLE 9

PERCENTAGE OF DAILY TRIPS DURING PEAK HOURS AND PRIME OFF-PEAK HOURS

<u>Phase I Activities</u>						
	<u>Arrive</u>			<u>Depart</u>		
	8-9 A.M.	Off- Peak*	4-5 P.M.	8-9 A.M.	Off- Peak*	4-5 P.M.
Retail/Commercial						
Employee	10	12	10	0	12	20
Non-Employee	0	10	5	0	10	20
Office						
Employee	55	2	0	0	2	55
Non-Employee	10	15	0	0	15	10
Residential						
Employee	25	5	5	5	5	25
Non-Employee	0	5	22	22	5	0

<u>Phase II Activities</u>						
Retail/Commercial						
Employee	55	0	0	0	0	55
Non-Employee	0	15	5	0	15	15
Hotel						
Employee	5	5	0	0	5	5
Non-Employee	7	8	3	3	8	7

*Off-Peak is intended to be representative of mid-day (1:00 - 2:00 P.M.) traffic.

arriving and departing primarily during the morning and evening traffic peak hours. Customers patronizing the retail facilities are assumed to be evenly distributed arriving and departing during the day. The assumption that the employee peak hour coincides with the roadway peak hour would tend to slightly exaggerate volumes, as the roadway peak hours occur from 7:30 to 8:30 A.M. and from 3:30 to 4:30 P.M. Residential trip-making is highly oriented to the regular commuting peak hours.

Tables 9 and 10 indicate that the estimated peak hour of person travel occurs from 4 to 5 P.M., amounting to about 1473 person arrivals and departures or just over 9.0% of the 16,436 daily person trips to and from the Columbia Point peninsula.

2.1c Employee/Non-Employee Distribution

Employees and non-employees (i.e. residents, hotel guests, office visitors, shoppers, etc.) travel at different times, stay for different lengths of time, and travel by different transportation modes. The estimate of the number of new employees expected to work at Columbia Point has been developed as follows:

- 1 employee per 360 sq. ft. of retail space
- 1 employee per 210 sq. ft. of office space
- 1 employee per hotel room
- 1 employee per 11 residential units

Table 11 presents the proportion by land use of person trips by employee and non-employee and a summary of daily person trips to be generated by all proposed development at Columbia Point.

2.1d Modal Split

In order to assess the demands placed on the various portions of the transportation system, it is necessary to convert person trips into trips taken by various modes - auto, public transportation or other.

In terms of modal choice, Columbia Point represents an area that is intermediate between a downtown location and a suburban one. In a downtown area, an average modal

TABLE 10

PEAK HOUR AND OFF-PEAK HOUR PERSON TRIPS

<u>Phase I</u>						
	<u>Arrive</u>			<u>Depart</u>		
	8-9 A.M.	Off- Peak	4-5 P.M.	8-9 A.M.	Off- Peak	4-5 P.M.
Retail/Commercial						
Employee	6	7	6	0	7	12
Non-Employee	0	25	13	0	25	50
Office						
Employee	530	19	0	0	19	530
Non-Employee	50	74	0	0	74	50
Residential						
Employee	24	5	5	5	5	24
Non-Employee	<u>0</u>	<u>235</u>	<u>1034</u>	<u>1034</u>	<u>235</u>	<u>0</u>
Total Employees	560	31	11	5	31	566
Non-Employees	<u>50</u>	<u>334</u>	<u>1047</u>	<u>1034</u>	<u>334</u>	<u>100</u>
Sub Total	610	365	1058	1039	365	666

<u>Phase II</u>						
Retail/Commercial						
Employee	61	0	0	0	0	61
Non-Employee	0	93	31	0	93	93
Hotel						
Employee	11	11	0	0	11	11
Non-Employee	<u>49</u>	<u>56</u>	<u>21</u>	<u>21</u>	<u>56</u>	<u>49</u>
Total Employees	72	11	0	0	11	72
Non-Employees	<u>49</u>	<u>149</u>	<u>52</u>	<u>21</u>	<u>149</u>	<u>142</u>
Sub Total	121	160	52	21	160	214
GRAND TOTAL	731	525	1110	1060	525	880

NOTE:

Total Additional Development Person "Arrivals and Departures" in 4 to 5 P.M.
Peak Hour = 1084 + 389 = 1473

TABLE 11EMPLOYEE/NON-EMPLOYEE PERSON TRIPS

	<u>% of Trips</u>	<u>1990 Phase I</u>	<u>2000 Phase II</u>
Retail/Commercial			
Employee	20%	61	-
Non-Employee	80%	245	-
Office			
Employee	66%	964	-
Non-Employee	34%	496	-
Residential			
Employee	2%	96	-
Non-Employee	98%	4704	-
Retail/Commercial			
Employee	15%	-	110
Non-Employee	85%	-	622
Hotel			
Employee	24%	-	221
Non-Employee	76%	-	699
		<hr/>	<hr/>
Total Employees		1121	331
Total Non-Employees		<hr/> 5445	<hr/> 1321
TOTAL		6566	1652

split is in the range of 30% automobile and 70% non-automobile. A suburban location is, for all intents and purposes, 100% automobile with minor exceptions. At Columbia Point, moderately high transit usage is anticipated, due to downtown and transit proximity and expected Red Line improvements.

For residential trips, it was estimated that residents (non-employee) would travel 40% by car, 50% by transit and 10% by foot, with the corresponding values for housing employees being 50%, 40% and 10%, respectively. Office employee modal choice would be 36% auto, 54% transit and 10% pedestrian while retail/commercial uses would be 50%, 40% and 10%, respectively. This distribution reflects the higher office employee tendency to utilize transit.

The results of the modal split calculations for the years 1990 and 2000 are presented in Table 12. Of the total 8,218 daily person arrivals, it can be seen that 4,099 persons arrive by auto, with the remainder arriving by transit or walking.

2.1e Trip Distribution To Approach Corridors

Origins and destinations of trips to and from the peninsula will include the entire Boston urbanized area and beyond. Thus, trips generated to the peninsula will come from various transportation corridors. In determining the distribution of travel, the following division of origins was used (based on a Central Transportation Planning Staff study, Program for Mass Transportation - EOTC April 1977):

<u>Origin Corridor or Area</u>	<u>Percent</u>
Downtown Core Area/South Boston	17
Northeast	9
North	15
Northwest	14
West	16
Southwest	12
Southeast	17
Total 100	

TABLE 12MODAL SPLIT

			<u>Phase I</u>					
			<u>Percentages</u>			<u>Daily Persons</u>		
	<u>Auto</u>	<u>Transit</u>	<u>Walk</u>	<u>Auto</u>	<u>Transit</u>	<u>Walk</u>		
Retail/Commercial								
Employee	50	40	10	31	24	6		
Non-Employee	70	30	0	172	73	0		
Office								
Employee	36	54	15	347	521	96		
Non-Employee	45	40	10	223	199	74		
Residential								
Employee	40	50	10	38	48	10		
Non-Employee	50	40	10	2352	1881	471		
Total Employees	-	-	-	416	593	112		
Non-Employees	-	-	-	2747	2153	545		
Sub Total				3163	2746	657		
			<u>Phase II</u>					
Retail/Commercial								
Employee	50	40	10	55	44	11		
Non-Employee	70	30	0	435	187	0		
Hotel								
Employee	12	73	15	27	161	33		
Non-Employee	60	25	15	419	175	105		
Total Employees	-	-	-	82	205	44		
Total Non-Employees	-	-	-	854	362	105		
Sub Total				936	567	149		
GRAND TOTAL				4099	3313	806		

2.1f Trip Assignment To The Transportation System - Persons And Vehicles

To establish the number of vehicles to be generated by the proposed developments, it was necessary to convert auto person trips to autos, via vehicle occupancy factors as shown below:

	<u>Vehicle Occupancy</u> (persons per car)
<u>Residential</u>	
Employee	1.3
Non-Employee	1.1
<u>Office</u>	
Employee	1.5
Non-Employee	1.1
<u>Retail/Commercial</u>	
Employee	1.3
Non-Employee	1.9
<u>Hotel</u>	
Employee	1.3
Non-Employee	1.4

For distribution of these vehicles onto the various roadways serving Columbia Point, vehicular trips generated were assigned to the roadway facilities as follows:

<u>Roadway</u>	<u>Traffic Assigned (%)</u>
I-93/Southeast Expressway North	43
Old Colony Boulevard	10
Day Boulevard	10
Columbia Road	12
I-93/Southeast Expressway South:	
Freeport Street Ramp to Morrissey	
Boulevard	20
Columbia Road Ramp	5
	<hr/> 100

The results of applying vehicle occupancy rates to the daily person arrivals of Table 8 are shown in Table 13 for the years 1990 and 2000. Peak-hour vehicular traffic was estimated by relevant daily trip categories of Table 13 and the corresponding peak-hour percentages of Table 9 and is shown in Table 14. The daily and peak-hour traffic generated by new developments was distributed to the

TABLE 13

AVERAGE WEEKDAY DAILY VEHICULAR ARRIVALS

	<u>Auto Persons</u>	<u>Vehicles</u>	<u>Auto Persons</u>	<u>Vehicles</u>
	<u>1990</u>	<u>1990</u>	<u>2000</u>	<u>2000</u>
Retail/Commercial				
Employee	31	24	-	-
Non-Employee	172	90	-	-
Office				
Employee	347	231	-	-
Non-Employee	223	203	-	-
Residential				
Employee	38	29	-	-
Non-Employee	2352	2138	-	-
Retail/Commercial				
Employee	-	-	55	39
Non-Employee	-	-	435	395
Hotel				
Employee	-	-	27	21
Non-Employee	-	-	419	299
Total Employees		284		60
Non-Employees		2431		694
TOTAL		2715		754 = 3469 Vehicles

TABLE 14

PEAK HOUR VEHICULAR TRAFFIC

Phase I						
<u>Arrive</u>			<u>Depart</u>			
	8-9 A.M.	Off- Peak	4-5 P.M.	8-9 A.M.	Off- Peak	4-5 P.M.
Retail/Commercial						
Employee	2	3	2	0	3	4
Non-Employee	0	9	5	0	9	18
Office						
Employee	127	5	0	0	5	127
Non-Employee	20	30	0	0	30	20
Residential						
Employee	7	2	2	2	2	7
Non-Employee	0	107	470*	470*	107	0
Total Employees	136	10	4	2	10	138
Non-Employees	20	146	475	470	146	38
Sub Total	156	156	479	472	156	176

Phase II						
Retail/Commercial						
Employee	21	0	0	0	0	21
Non-Employee	0	59	20	0	59	59
Hotel						
Employee	1	1	0	0	1	1
Non-Employee	21	24	9	9	24	7
Total Employees	22	1	0	0	1	22
Non-Employees	21	83	29	9	83	66
Sub Total	43	84	29	9	84	88
GRAND TOTAL	199	240	508	481	240	264

*See note under Table 9

roadway network according to the proportions given above and also shown in Figure VI-5.

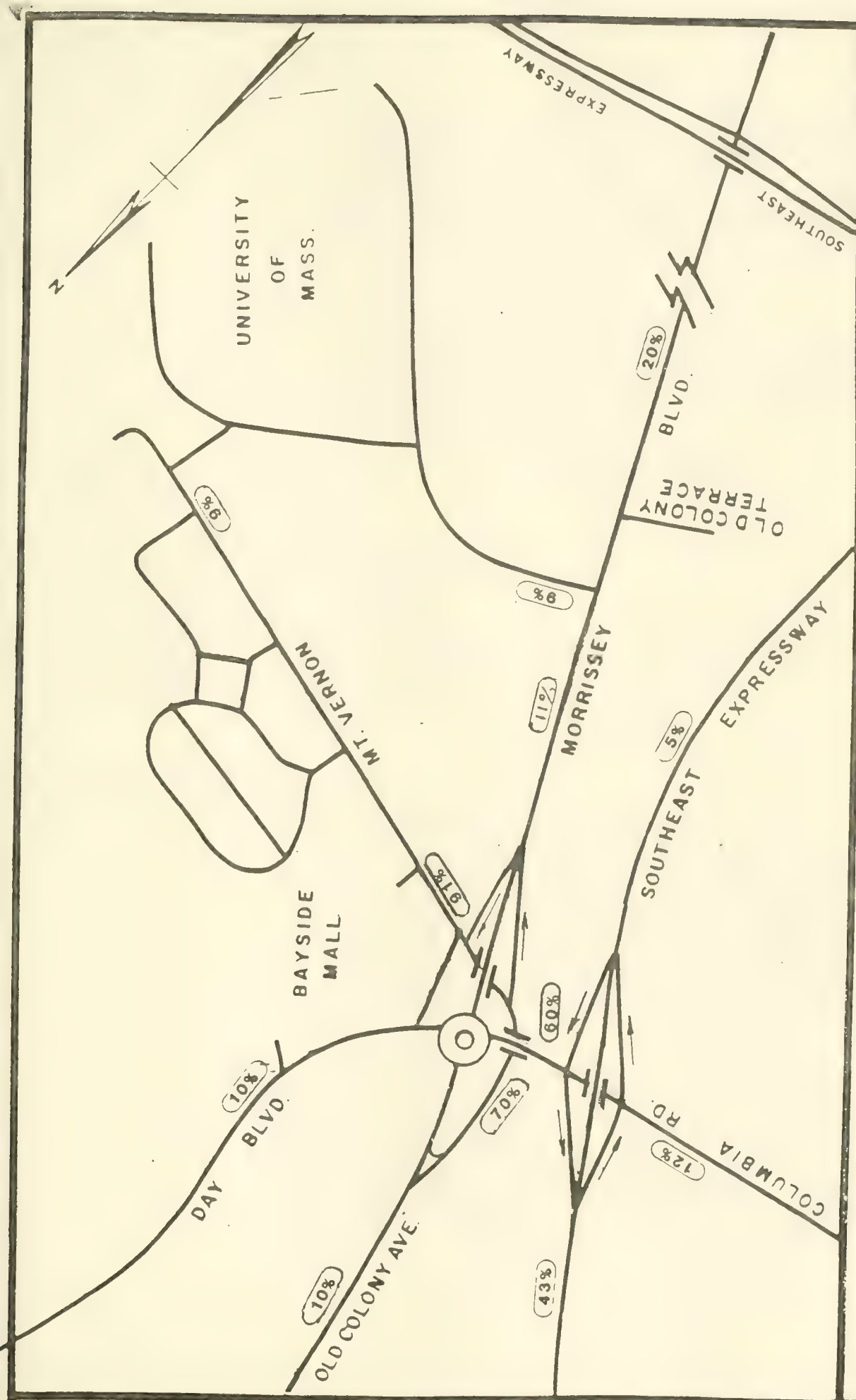
Alternative A and B both limit the usage of the Day Boulevard Connector from Mt. Vernon Street, changing the existing traffic pattern with the expectation of reducing traffic demand on Day Boulevard. Decisions, therefore, had to be made on the changes in traffic routings which would be associated with the Day Boulevard Connector modifications.

In Alternative A, the circulation change is simply an off-setting of the northbound off-ramp from Morrissey Boulevard at Mt. Vernon Street. Thus, traffic from this ramp could no longer pass straight through as a bypass to Day Boulevard (via the Connector), but would have to either turn left to Old Colony Avenue or right on Mt. Vernon Street to the peninsula, or reroute directly to Kosciuszko Circle and Day Boulevard or other legs to the rotary.

The most probable reaction to the change in Connector access for current straight-through vehicles from Morrissey Boulevard would be to continue directly to the Circle, with the alternative left-turns into Old Colony Avenue being a close second choice. After turning left, vehicles would travel via Old Colony Avenue to return via Columbia Road (north leg) to the circle or continue in the intown direction along Columbia/Old Colony Avenue.

In order to present a worst case analysis, all current straight-through traffic on the Morrissey Boulevard northbound ramp to Mt. Vernon Street was converted into left-turns into Old Colony. This would place the greatest traffic stress on the Columbia Point "gateway" intersections at Mt. Vernon Street and the Day Boulevard Connector and at Old Colony Avenue and Morrissey Boulevard southbound on-ramp, including vehicular access to the JFK/U-Mass transit station.

Alternative B is similar to Alternative A, except that the Mt. Vernon Street to Day Boulevard direction of the Connector is completely eliminated, giving Columbia Point generated traffic no choice except to continue



**COLUMBIA POINT PENINSULA
REVITALIZATION PROGRAM**

**Percentage Distribution
of Site - Generated Traffic**

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on Old Colony Avenue to go either via the Columbia Road (north) leg to Kosciuszko Circle or intown via Columbia/Old Colony. The current straight-through traffic on the northbound Morrissey ramp to Mt. Vernon is retained as left-turns as in Alternative A, as a worst-case scenario.

2.1g Public Transportation

For distribution of public transportation trips to the various facilities, the corresponding proportions were estimated for the 3313 person arrivals.

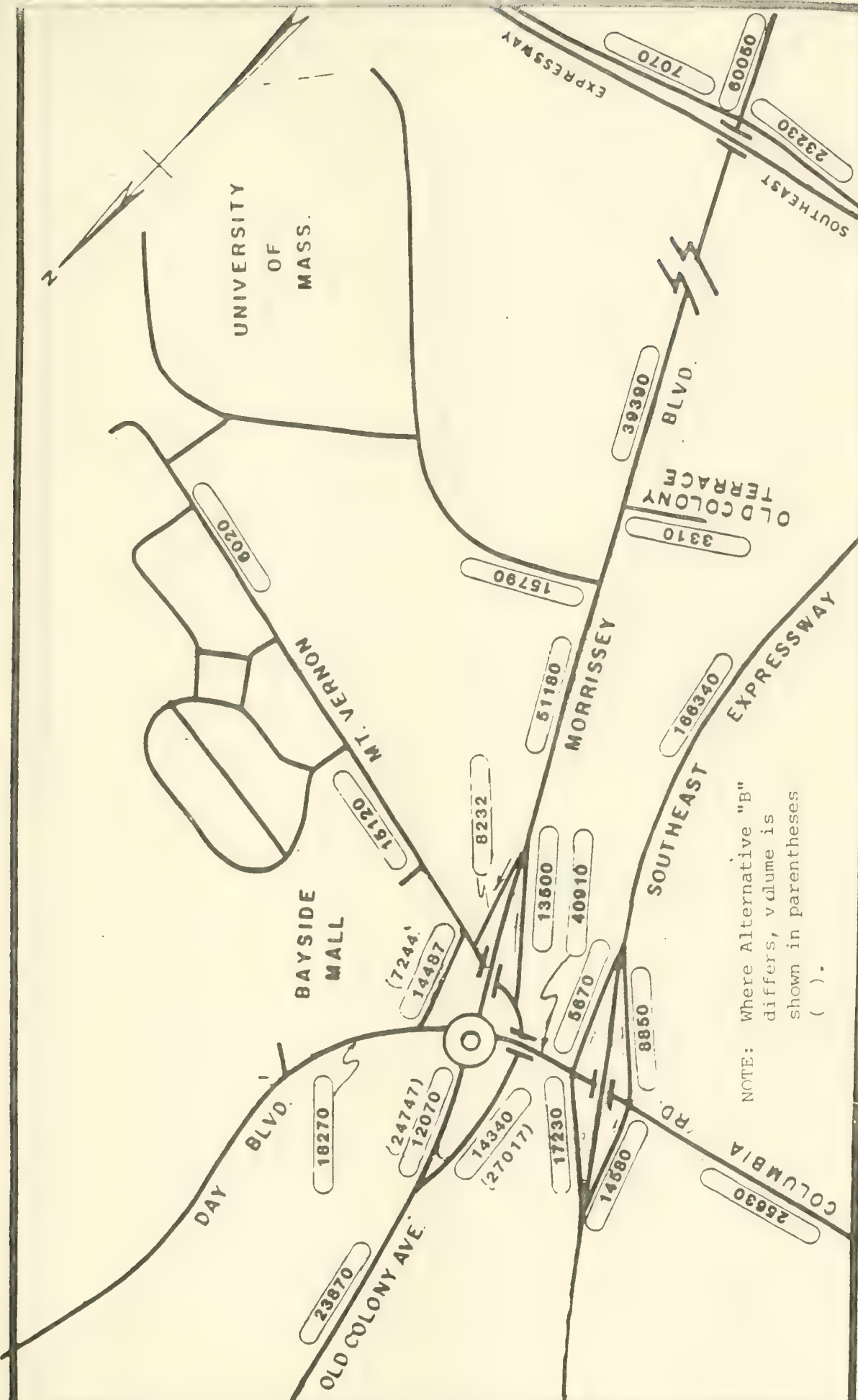
<u>Public Transportation Facility</u>	<u>Percentage of Person Trips</u>
Red Line-Northbound Direction*	
Ashmont and Braintree Branch	60
Red Line - Ashmont Branch*	
Southbound	15
Red Line - Braintree Branch*	
Southbound	15
Crosstown/Dorchester Buses	10
Total	100

*Plus shuttle bus service

2.2 Future Traffic Demand and Impact

The results of this traffic assignment process are shown in a number of figures and tables. Figure VI-5 presents the percentages of site-generated traffic that are assigned to each roadway link. Total volumes on each link, including both site-generated and general traffic, are shown for an average weekday in Figures VI-6 and VI-7 for 1990 and 2000.

To provide a reasonable comparison of traffic generated by the proposed developments with respect to total traffic, the site-generated average daily traffic is shown in Figures VI-8 and VI-9 on selected roadway links as a percentage of total traffic for 1990 and 2000. As would be expected, this percentage decreases to rather low values with increasing distance from Columbia Point.

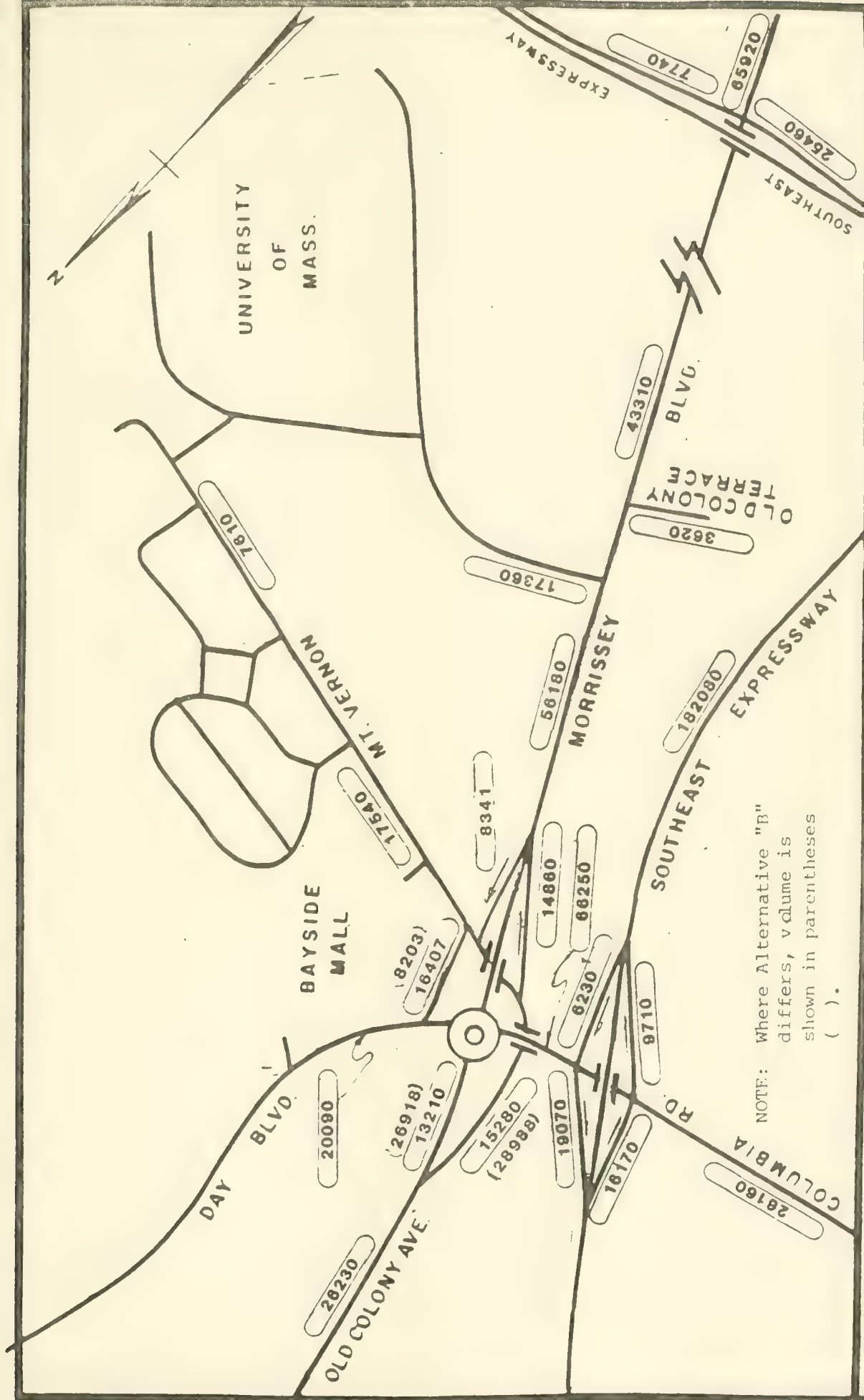


NOTE: Where Alternative "B" differs, volume is shown in parentheses ().

**COLUMBIA POINT PENINSULA
REVITALIZATION PROGRAM**

**Average Weekday Daily Traffic
YEAR 1990
ALT. "A" & "B"**

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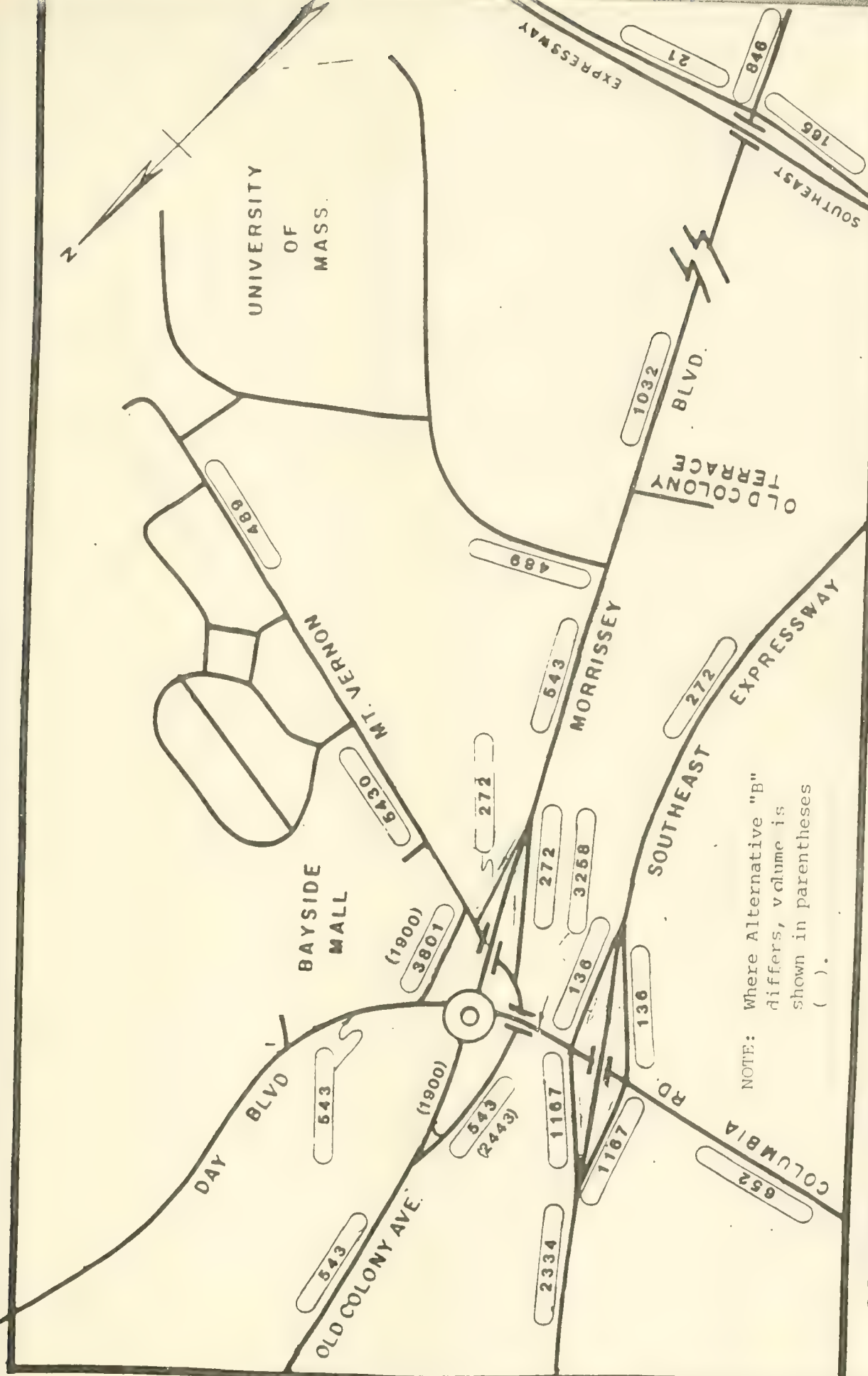


NOTE: Where Alternative "B" differs, volume is shown in parentheses ().

COLUMBIA POINT PENINSULA REVITALIZATION PROGRAM

Average Weekday Daily Traffic
YEAR 2000
ALT. "A" & "B"





NOTE: Where Alternative "B" differs, volume is shown in parentheses ().

**COLUMBIA POINT PENINSULA
REVITALIZATION PROGRAM**

**Average Weekday Daily Traffic
Site Generated
YEAR 1990
ALT. "A" & "B"**

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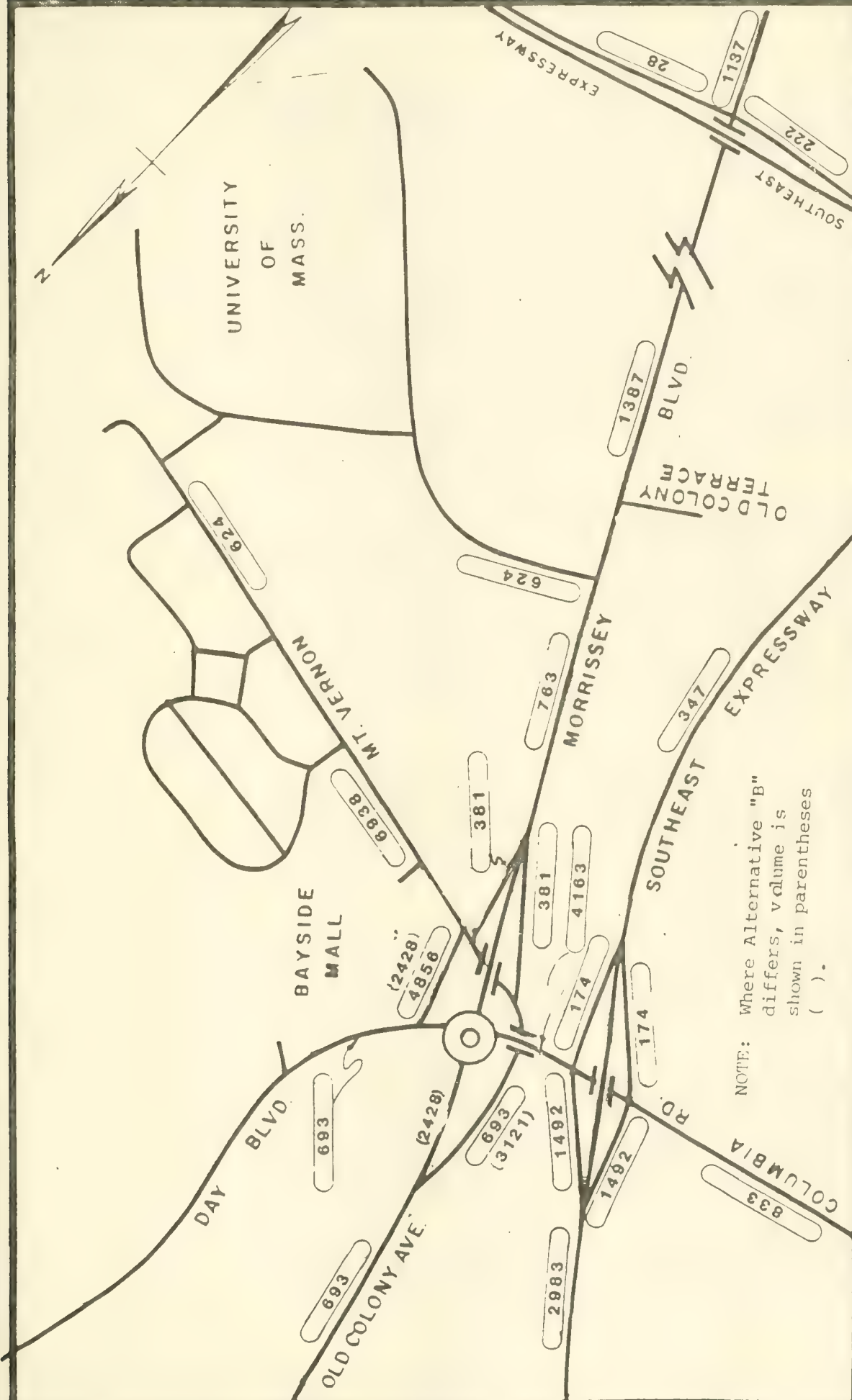


FIGURE VI - 9

Figure VI-10 shows a comparison of proposed traffic with total traffic crossing a cordon line drawn around the development area, excluding the Southeast Expressway and certain legs of Kosciuszko Circle. The average daily traffic created by the new developments in the year 2000 amounts to 6.2% of total traffic. Figure VI-11 presents the percentage that new site-generated average daily traffic is of total traffic in years 1990 and 2000. On the Day Boulevard Connector, new site-generated traffic represents 24 percent of the total flow, while south of the U-Mass Roadway on Morrissey Boulevard, additional traffic from the proposed developments is only 3 percent. On the Expressway north of Columbia Road, the new trips amount to 2 percent of the total vehicular volume on the roadway.

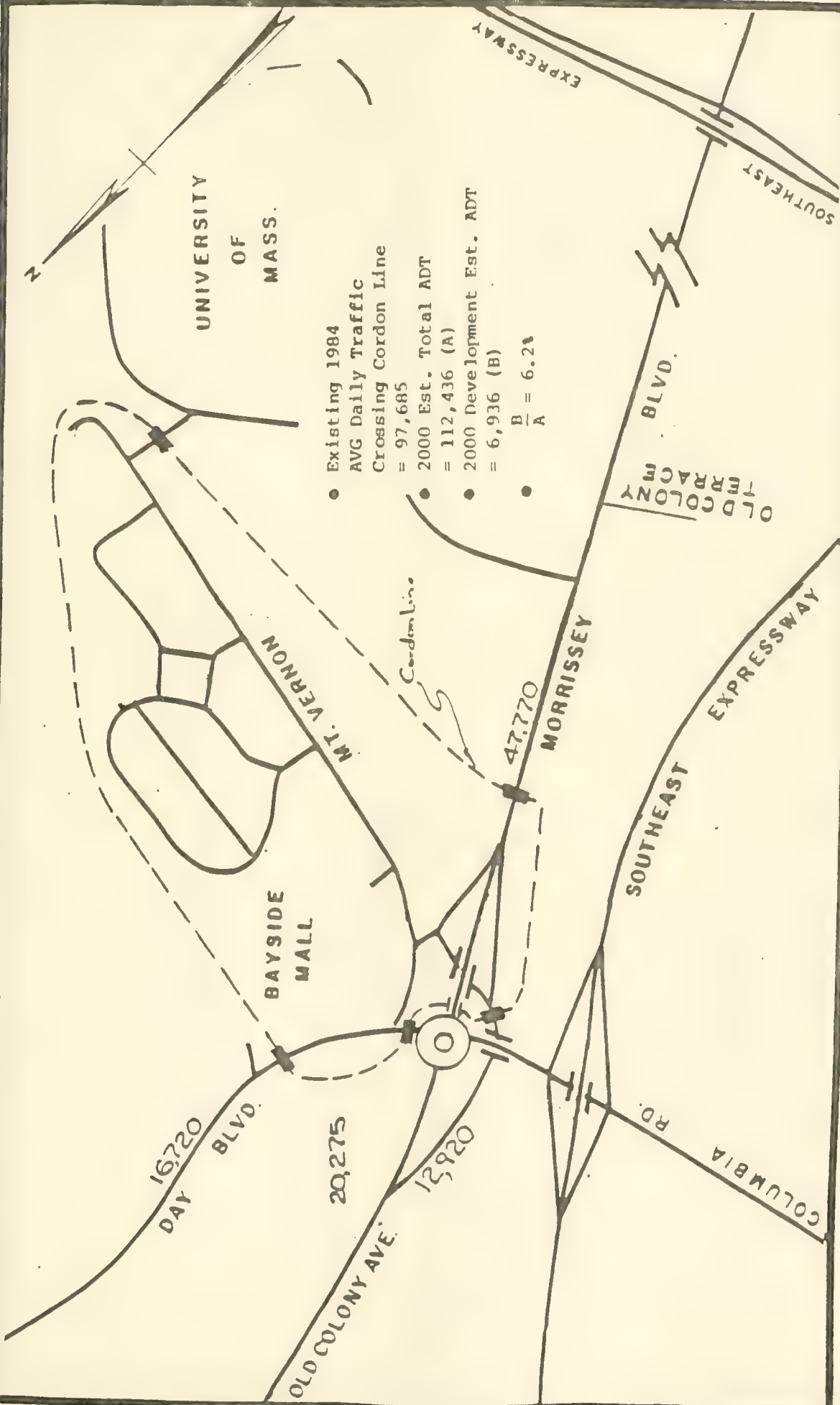
By observing existing traffic patterns, and recognizing the fact that the Bayside Expo Center generates very low traffic in the A.M. peak hour, it was concluded that the P.M. peak hour (4:00 to 5:00 P.M.) is the critical traffic period for intersectional capacity and LOS analyses. However, due to a specific known condition, A.M. peak hour traffic was analyzed at the intersection of Morrissey Boulevard and the U-Mass Roadway.

In Tables 15 and 16, projected P.M. peak-hour total traffic volumes for 1990 and 2000, assuming full development on Columbia Point, are given along with related average daily traffic for roadway links. The A.M. peak-hour volumes for Morrissey Boulevard and U-Mass Roadway are also given.

Table 17 shows the results of P.M. (and special case A.M.) peak-hour capacity analyses, expressed as volume to capacity (v/c) ratios. These indicate some congestion, as noted, and serve to produce intersectional LOS results.

It is important to note that these values assume that the proposed roadway improvements described hereinbefore are implemented. These improvements, which are independent of the Harbor Point redevelopment project, will be fully assessed in a separate EIR to be prepared by the Boston Redevelopment Authority.

As in many urban areas, one of the chief concerns is how the generation of additional automotive

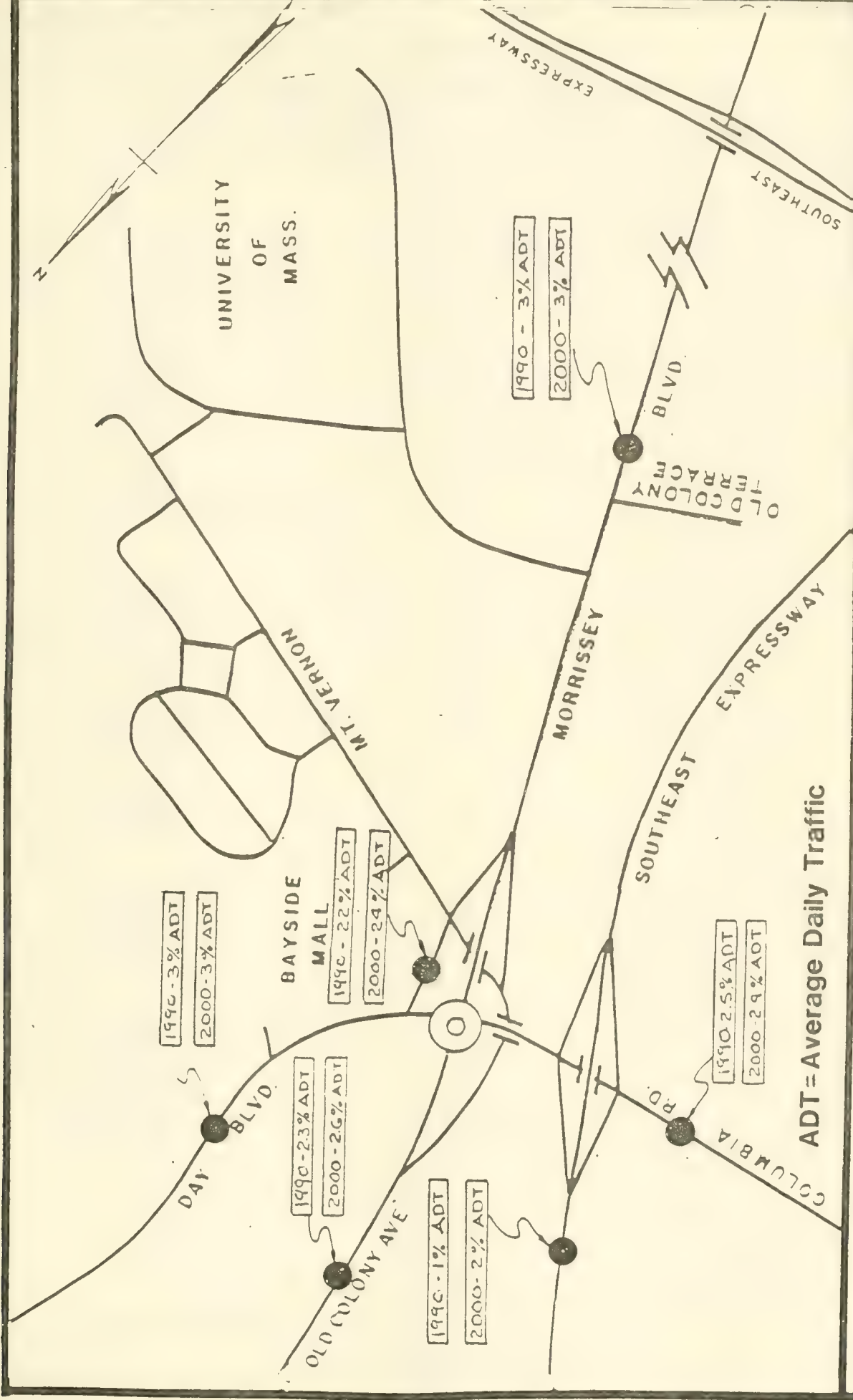


**COLUMBIA POINT PENINSULA
REVITALIZATION PROGRAM**

**TRAFFIC VOLUME OVERVIEW
OF DEVELOPMENT**

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FIGURE VI-10



ADT = Average Daily Traffic

**COLUMBIA POINT PENINSULA
REVITALIZATION PROGRAM**

**PERCENTAGE OF NEW SITE-GENERATED
ADT TO TOTAL ADT**

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TABLE 15

COLUMBIA POINT REVITALIZATION PROGRAM (1990) - Alternate "A"

Traffic Volumes* on Major Project Area Streets and Highway Network

<u>Street</u>	<u>P.M. Peak</u> <u>4 - 5 P.M.</u>	<u>A.M. Peak</u> <u>7 - 8 A.M.</u>	<u>AWDT</u>
Southeast Expressway			
Southbound Ramp	692	--	13,970
Northbound Ramp	284	--	5430
Columbia Road			
Eastbound	1121	--	14,732
Westbound	1486	--	17,069
Wm. J. Day Boulevard			
Eastbound	1225	--	11,058
Westbound	888	--	7189
Wm. J. Day Boulevard Connector			
Northbound	904	--	10,874
Wm. J. Day Boulevard Connector			
Southbound	591	156	6139
Mt. Vernon Street			
Westbound	686	732	7229
Old Colony Avenue			
Eastbound	47	50	445
Morrissey Boulevard Off-ramp			
Northbound	490	305	8219
Old Colony Avenue			
Eastbound	1037	--	263
Westbound	347	--	3537
Morrissey Boulevard @ U-Mass Rd.			
Northbound	1034	3784	23,378
Southbound	2918	427	22,915
U-Mass Road			
Westbound	590	222	6985
Morrissey Blvd. @ Freeport St.			
Northbound	880	--	21,795
Southbound	2990	--	30,943
Freeport Street			
Eastbound	618	--	9586
Westbound	470	--	5054

*One-way intersectional approach volumes

TABLE 16

COLUMBIA POINT REVITALIZATION PROGRAM (2000) - Alternate "A"

Traffic Volumes* on Major Project Area Streets and Highway Network

<u>Street</u>	<u>P.M. Peak</u> <u>4 - 5 P.M.</u>	<u>A.M. Peak</u> <u>7 - 8 A.M.</u>	<u>AWDT</u>
Southeast Expressway			
Southbound Ramp	722	--	15,050
Northbound Ramp	305	--	5800
Columbia Road			
Eastbound	1197	--	14,832
Westbound	1629	--	17,570
Wm. J. Day Boulevard			
Eastbound	1259	--	11,554
Westbound	930	--	7273
Wm. J. Day Boulevard Connector			
Northbound	910	--	11,459
Wm. J. Day Boulevard Connector			
Southbound	621	199	6716
Mt. Vernon Street			
Westbound	766 (-51)	761	7439 (-576)
Old Colony Avenue			
Eastbound	48	100	176
Morrissey Boulevard Off-ramp			
Northbound	531	353	8131
Old Colony Avenue			
Eastbound	1098	--	347
Westbound	505 (-51)	--	4002 (-576)
Morrissey Boulevard @ U-Mass Rd.			
Northbound	1096	4034	23,505
Southbound	3107 (-51)	464	23,082 (-576)
U-Mass Road			
Westbound	634 (+51)	238	7660 (+576)
Morrissey Blvd. @ Freeport St.			
Northbound	939	--	21,929
Southbound	3183	--	31,216
Freeport Street			
Eastbound	650	--	9613
Westbound	490	--	5063

() indicates difference in no-build situation

*One-way intersectional approach volumes

TABLE 17

COLUMBIA POINT

VOLUME TO CAPACITY RATIOS

(P.M. PEAK HOUR 4:00-5:00)

Intersection	1984	1990	2000	Proposed Roadway			
	Existing	No Roadway		1990	Alt.		2000
		Build		"A"	"B"	"A"	"B"
<u>Columbia Rd.-Expressway</u>							
<u>Southbound Off-Ramp</u>							
Columbia Rd. (west)	.78	1.1	1.1	1.1	1.1	1.1	1.1
Columbia Rd. (east)	.78	.94	1.2	.94	.94	1.2	1.2
Expressway Off-Ramp (south)	.81	1.1	1.2	.94	.94	1.2	1.2
<u>Columbia Rd.-Expressway</u>							
<u>Northbound Off-Ramp</u>							
Columbia Rd. (west)	.87	.96	1.1	.96	.96	1.1	1.1
Columbia Rd. (east)	.74	.90	.97	.90	.90	.97	.97
Expressway Off-Ramp (north)	.86	.99	1.1	.99	.99	1.1	1.1
<u>Wm. J. Day Blvd.-Day</u>							
<u>Blvd. Connector</u>							
Day Blvd. (west)	.86	.97	.85	.77	.69	.90	.69
Day Blvd. (east)	.67	.97	.92	.64	.70	.74	.70
Day Connector (north)	.86	.97	.94	.76	--	.88	--
<u>Day Connector-Morrissey</u>							
<u>Off-Ramp</u>							
Old Colony (east)	0	.06	.06	.15	.07	.14	.07
Mt. Vernon St. (west)	.44	.87	.99	.53	.49	.59	.57
Morrissey Off-Ramp (north)	.22	.88	.96	.53	.47	.59	.56
Day Connector (south)	.44	.81	.86	.22	.36	.25	.43
<u>Old Colony-Morrissey</u>							
<u>Southbound On-Ramp</u>							
Old Colony (east)	.32	.32	.32	.07	.08	.07	.08
Old Colony (west)	.24	.28	.32	.26	.28	.26	.28

VOLUME TO CAPACITY RATIOS (Continued)

<u>Intersection</u>	<u>1984</u>		<u>1990</u>		<u>2000</u>		<u>Proposed Roadway</u>							
	<u>Existing</u>		<u>No Roadway Build</u>				<u>1990</u>				<u>2000</u>			
							<u>Alt.</u>				<u>Alt.</u>			
	AM	PM	AM	PM	AM	PM	"A" AM	"A" PM	"B" AM	"B" PM	"A" AM	"A" PM	"B" AM	"B" PM
<u>Morrissey Blvd.- U-Mass Rd.</u>														
Service Rd.	.78	.69	.93	.74	1.2	.80	.93	.74	.93	.80	1.2	.74	1.2	.8
U-Mass Rd. (west)	.73	.72	.86	.73	1.2	.84	.86	.73	.86	.84	1.2	.73	1.2	.8
Morrissey Blvd. (north)	1.4	.70	1.5	.37	1.7	.48	1.3	.37	1.5	.48	1.7	.37	1.7	.4
Morrissey Blvd. (south)	.77	.31	.94	.75	1.2	.83	.94	.75	.94	.83	1.2	.75	1.2	.8
<u>Morrissey Blvd.- Freeport St.</u>														
Morrissey Blvd. (south)	1.10		1.20		1.30		1.20		1.30		1.20		1.30	
Morrissey Blvd. (north)	1.10		1.20		1.30		1.30		1.30		1.30		1.30	
Freeport St. (east)	1.10		1.20		1.30		1.20		1.30		1.20		1.30	
Freeport St. (west)	1.10		1.20		1.30		1.20		1.30		1.20		1.30	

THE MEANING OF THE V/C RESULTS

<u>V/C</u>	<u>IMPLICATIONS</u>
0.70 and below.....	No congestion expected
0.80.....	Congestion very unlikely
0.90.....	Some delays encountered; some congestion during peak events or bad weather
1.00.....	Some congestion will be encountered during the peak hour
1.10.....	The entire peak hour may be congested
1.20 and above.....	Congestion will extend beyond the peak hour unless traffic travels at other times, involves more transit/shared ride, or trips aren't made (less development; more building vacancies).

traffic will impact the project area by the creation of further congestion, delays, waste of energy and air pollution. This future traffic has been analyzed with respect to roadway capacity to indicate Levels of Service (LOS) at key intersections for peak-hour periods. These LOS are shown in Table 18 and are highlighted in Figure VI-12 for the most critical case of year 2000 with full development.

Analysis of the LOS data indicates that no LOS F conditions are created that do not already exist. Additionally, significant improvement is experienced at both ends of the Day Boulevard Connector with the proposed street improvements.

The second situation relates to the purpose and nature of the proposed improvements. These do not directly create much additional capacity, as described earlier and restated below:

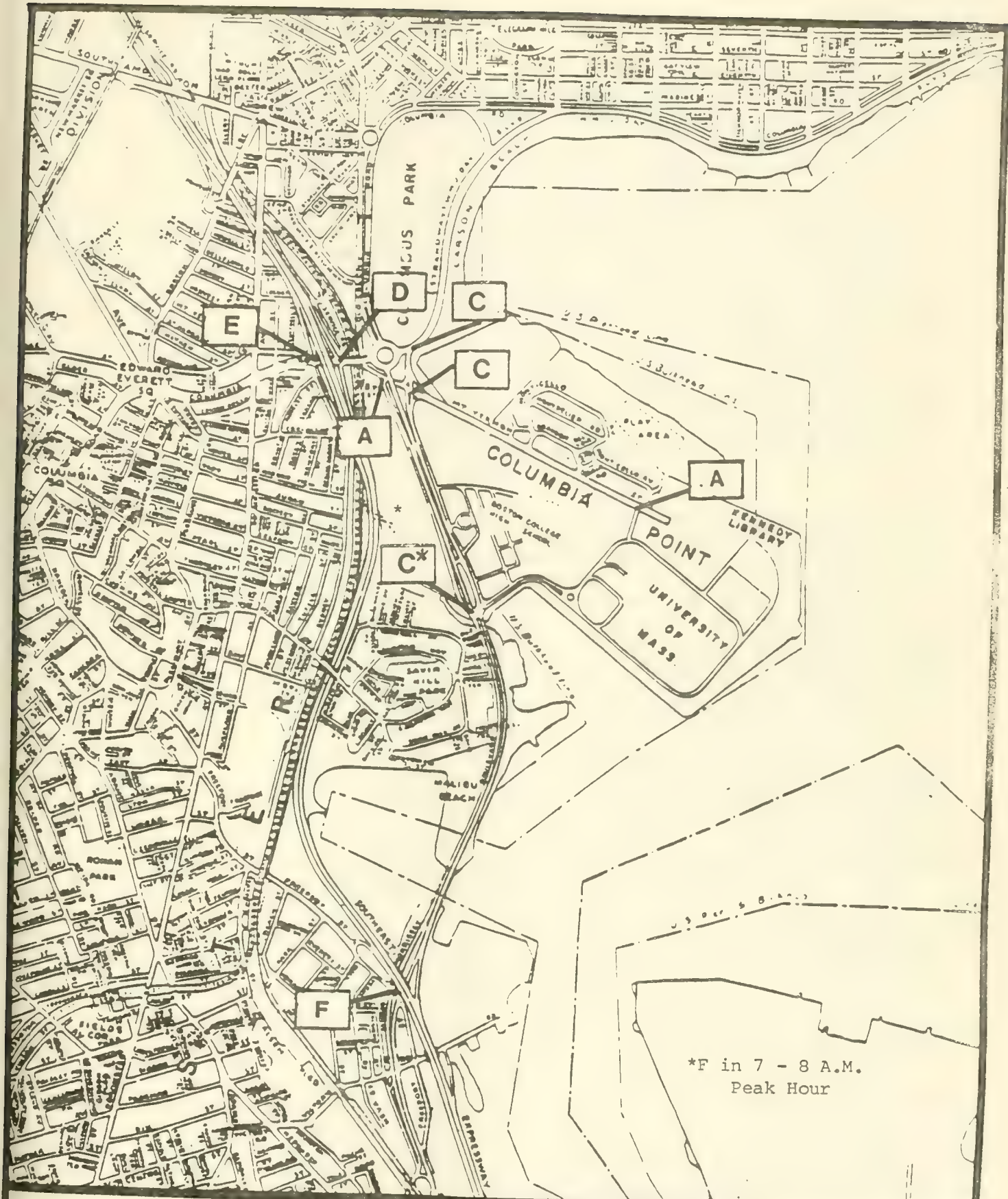
- The operational improvements to the Day Boulevard/Mt. Vernon Connector intersection offer an increase in capacity which would cause a great LOS change, and promises safety and operational improvements where direct police traffic direction would not be required so often.
- Off-setting the Morrissey Boulevard northbound off-ramp to Mt. Vernon Street is intended to eliminate the by-passing of traffic from Morrissey Boulevard to Day Boulevard via the Connector.
- The reconstruction of Mt. Vernon Street is intended to eliminate excess roadway, give better pedestrian service and substantially upgrade the street appearance, all without providing additional capacity at critical points.
- The connection of Mt. Vernon Street with U-Mass Roadway is directed toward allowing all peninsula activities the option of using either gateway (U-Mass or Expo Center area), the opportunity to drive from one peninsula point to another without exiting to adjacent arterial roadways, more bus shuttle flexibility and to help integrate Columbia Point land uses into one community.

Columbia Point Revitalization Program

Levels of Service - 4:00 - 5:00 P.M.

Intersection	No Roadway Build		Proposed Roadway Alt.				Existing
	1990	2000	"A" 1990	"B" 1990	"A" 2000	"B" 2000	
Columbia Road Expressway NB Off-ramp	E	E	D	D	D	D	D
Columbia Road Expressway SB Off-ramp	E	F	D	D	E	E	C
Wm. J. Day Boulevard Wm. J. Day Blvd. Connector	D	E	C	B	D	C	D
Old Colony Ave.- Morrissey Blvd. SB On-ramp	A	A	A	A	A	A	A
Mt. Vernon St.-Wm. J. Day Blvd. Connector	D	E	A	B	A	C	A
U-Mass -Morrissey Blvd. (in A.M. peak)	B (F)	C (F)	B (F)	C (F)	B (F)	C (F)	B (F)
Morrissey Blvd. Freeport St.	F	F	F	F	F	F	F

Levels of Service are based on volume-capacity ratios according to the Highway Capacity Manual (Highway Research Board, 1965). Levels range from A to F, with A representing free-flow traffic and excellent service conditions and F representing forced-flow, stop-and-go traffic and jammed conditions. Urban traffic conditions are considered acceptable if they are at LOS C or better.



COLUMBIA POINT PENINSULA REVITALIZATION PROGRAM

**P.M. Peak Hour Level Of Service
4:00-5:00
2000 ALT. "A"**

**boston redevelopment authority
transportation planning department**

FIGURE VI-12

The action of interconnecting the roadways on the peninsula causes a potential shift in traffic patterns. It is known that some vehicles from the U-Mass/JFK Library areas will choose to use Mt. Vernon Street instead of U-Mass Roadway, while some Mt. Vernon Street area vehicles will use U-Mass Roadway instead of Mt. Vernon Street. The estimate of this was slightly under one-half of new development-generated traffic (9% of total generation) destined for Morrissey Boulevard south, and comprises less than 4% of total U-Mass Roadway daily traffic in year 2000. Thus, the effect of the proposed improvements on the capacity/LOS situation is manifest primarily in the U-Mass/Mt. Vernon Street interconnection producing a minor traffic circulation shift. The maximum peak-hour shift of less than a net difference of 50 cars is scarcely enough to cause a perceptible LOS change.

The worsening of Columbia Road and southbound expressway off-ramp intersection LOS from C to E is in part linked to the additional traffic from the new Columbia Point developments, mainly new residents in the commuter peak hours, focusing on this point (60% of total generation). The estimated generated traffic may be somewhat more peaked in the commuter hours than will be the case (22% of resident daily arrivals in P.M. peak hour), but this serves to highlight the effect.

The proposed roadway improvements are confined to the peninsula area and do not affect the Columbia Road critical points. This interchange area would require a regional type improvement or a regional shift or decrease in traffic. The proposed improvements set forth here neither improve nor worsen the LOS E situation.

A summary of the intersections suffering from a future LOS F, or breakdown of traffic flow, are noted below. This level of service occurs for both existing and future years:

- o A.M. Peak Hour - Morrissey Boulevard and U-Mass Roadway
- o P.M. Peak Hour - Morrissey Boulevard and Freeport Street

All other locations in the study area will exhibit LOS E or better, indicating tolerable conditions

in the peak hour. It also should be noted that the increased traffic due to the proposed developments only affects those intersections in close proximity to the peninsula, leading to worsened Levels of Service.

2.3 Measures to Avoid and Minimize Traffic Impact

In assessing possible future traffic scenarios at Columbia Point, particularly in the northern section being redeveloped, three areas for street improvements have been identified. The selected improvements to address these conditions have been described hereinbefore.

Additional mitigation measures to overcome the observed and projected roadway congestion must be on a regional basis in addition to local actions. Measures relating to regional facilities that may reduce traffic volumes are:

- o Red Line Improvements - The Red Line will benefit from two major actions which should help increase transit usage to Columbia Point. The first action is the alteration of JFK/U-Mass Station to serve Braintree branch trains. This will double the service rendered to downtown Boston from the Columbia Point area and give access to South Shore riders who now must travel to Andrew Station and backtrack. The second is the introduction of six-car trains which has the potential of increasing capacity by 50% over the present four-car trains. Both actions may be complete by 1990.
- o Southeast Expressway Reconstruction - Although the end result of Southeast Expressway reconstruction will not add much additional capacity to the facility, safety and other operational benefits will be realized. This should help encourage corridor traffic to remain on the Expressway instead of using Morrissey Boulevard and South Boston roadways as a bypass to Downtown Boston. This would directly reduce traffic volumes on Morrissey Boulevard, Day Boulevard, Old Colony Avenue and the Columbia Road/Expressway ramps.

The management measures taken during the reconstruction, i.e. the encouragement of carpooling, transit, staggered work hours,

water transportation, etc., should also serve to influence continued use of public transportation.

- o Central Artery/Third Harbor Crossing - The long-range proposal of depressing the Central Artery and building a Third Harbor Crossing should encourage greater use of the expressway system. Presently, much of the Expressway bypass traffic seeks to avoid intown congestion on and extending from the Central Artery. The long-range project will provide additional Central Artery capacity with direct access to a new harbor crossing.
- o Water Transportation - Increased emphasis is being given by the Commonwealth to fostering a more extensive water transportation system. Insofar as South Shore travellers use available existing and future water service, the number of automobiles passing by or through the Columbia Point study area may be reduced.

A year ago, Congress authorized \$5.2 million to be allocated to the National Archives for a boat dock and addition to the J.F.K. Library. The dock has been designed to serve tour boats, the Thompson Island Ferry, and the U-Mass research vessel. Dredging tests are underway for PCB's and the dock should be completed by 1986. The U.S. Army Corps of Engineers will prepare an Environmental Assessment of this project.

- o Regional Transportation Systems Management - As noted above, the Southeast Expressway work has focussed more attention on management measures to operate the total transportation system more effectively. This "TSM" emphasis is expected to continue in general, encouraging use of transit, carpooling, staggered work hours and vanpooling, along with relatively low cost operational improvements which yield greater system efficiency. The more such TSM actions are utilized, the less the automotive burden on a strained system.

Although it is clear that expected measures of a more regional nature are essential in overcoming congestion at critical locations around Columbia

Point, there are a number of more local actions which could help produce balanced access to Columbia Point. The proposed street improvements do not provide significant new capacity for the traffic from existing and proposed new development so that greater reliance on higher vehicular occupancy and transit is necessary. Even with the improvements, problems remain which can be lessened by regional efforts, noted above, and more local measures, set forth below:

- o U-Mass Roadway/Morrissey Blvd. Intersection Improvements - The U-Mass Roadway/Morrissey Boulevard intersection experiences a Level of Service F in the A.M. peak hour. In order to alleviate the congestion at this location, BRA and U-Mass have conducted discussions of possible improvements at this key intersection. A review will be made first of low cost adjustments which could improve operations in the near future with a study of long-range, more extensive improvements to follow.
- o Roadway Improvements adjacent to JFK/U-Mass Transit Station - Although roadway improvements to the intersection of Old Colony Boulevard and the southbound on-ramp to Morrissey Boulevard/MBTA Station access drive are not part of the roadway proposals, as put forth by the BRA, they are important for the functioning of the nearby network, particularly if Alternative B of the Day Boulevard Connector is chosen.

The current geometry along Old Colony Boulevard at this point is awkwardly constrained by underpass conditions (under Columbia Road and Morrissey Boulevard connectors to Kosciuszko Circle) and an old foundry site which has been acquired by the MBTA in association with station improvements. The MBTA is including modifications to the roadways in the station plans which would improve turning geometry and increase visibility. Since the proposed roadway improvements, especially Alternative B, will funnel additional traffic into this area, the MBTA-sponsored work will be valuable in maintaining good traffic operations including important shuttle bus movements.

- o Bus Shuttles - The improvements to the JFK/U-Mass Station should be matched with future expanded bus shuttles, particularly to the Bayside Exposition Center and new development areas. Additionally, the established U-Mass shuttle service should be maintained and enhanced where possible. This improved local distribution of people, coupled with the Red Line improvements, will help reduce auto usage further.
- o TSM Measures - In the more local sense, management actions can go far in helping reduce congestion. Columbia Point businesses and institutions can encourage transit use through incentives, cooperate in scheduling special events so conflicts do not occur, coordinate shuttle service, etc.

3. Public Transportation

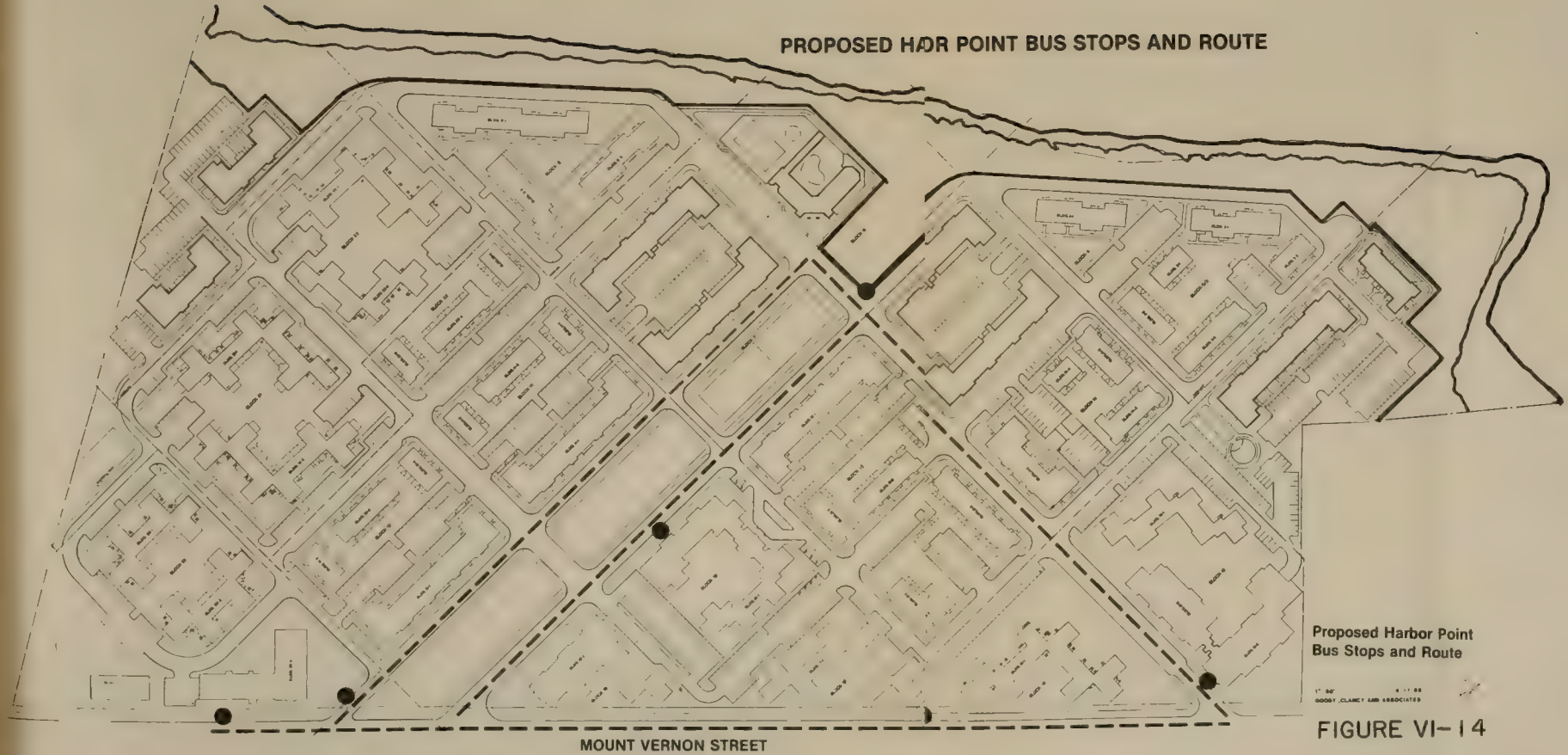
3.1 Red Line Improvements

The public transportation improvements that are proposed for Columbia Point involve the MBTA Red Line service at JFK/U-Mass Station. The station is to be rebuilt to allow Braintree trains to stop at an additional platform integrated with Dorchester branch service. This will result in a doubling of service for patrons from the north and eliminate a transfer and backtracking from the Braintree Branch. The components of the new station are: a new platform (440 feet long); a new pedestrian bridge; a new bus transfer lobby; a new station lobby over the Braintree tracks and alterations to the existing station lobby over the Dorchester tracks; the installation of approximately 1400 feet of track with connections to the existing platform; 6 handicapped parking spaces; and landscaping and signage for the new station. The bus loop and auto drop-off will be designed to better serve access to trains.

3.2 MBTA Surface Bus Routes

Routes 08 and 16 buses will continue to operate, and any increases in service will be contingent on further study by MBTA for future demand in ridership. Figures VI-13 and VI-14 detail the proposed bus routes during the construction period and after the project is complete.

PROPOSED HARBOR POINT BUS STOPS AND ROUTE



Proposed Harbor Point
Bus Stops and Route

1" = 50'
GODDARD, CLANCY AND ASSOCIATES

FIGURE VI-14

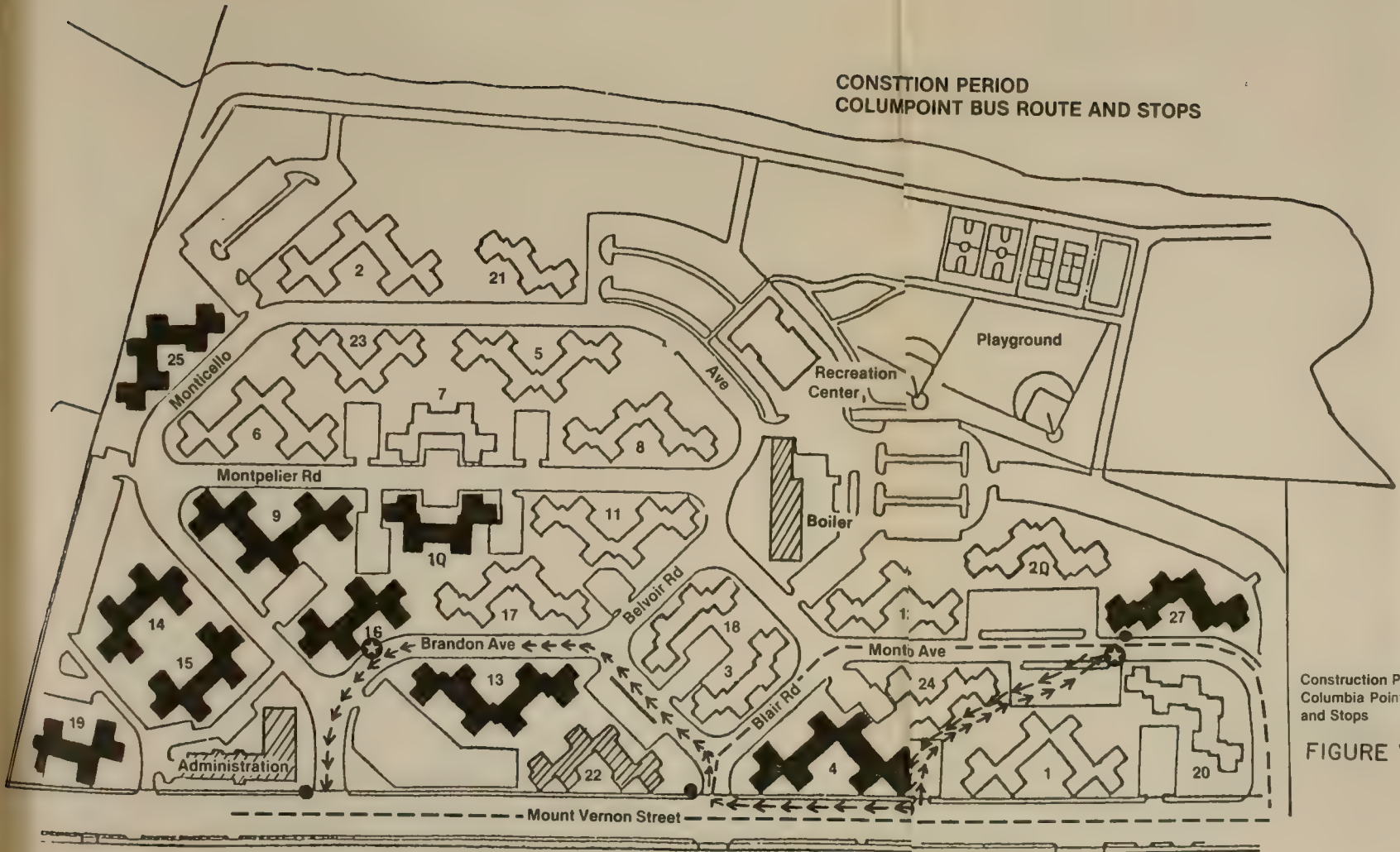


ROUTE
STOPS



HARBOR POINT
BUS STOPS AND ROUTE

CONSTRUCTION PERIOD COLUMBIA POINT BUS ROUTE AND STOPS



Construction Period
Columbia Point Bus Route
and Stops

FIGURE VI-13

■ OCCUPIED (352 UNITS AFTER
TEMPORARY RELOCATION)
▨ NON-RESIDENTIAL OCCUPIED

--- CURRENT
ROUTE
→ TEMPORARY
ROUTE

● CURRENT
STOPS
★ TEMPORARY ST.

3.3 Shuttle Bus

The U-Mass shuttle bus will continue to operate between the hours of 6:00 A.M. and 10:30 P.M. and will benefit from the proposed new bus loop at JFK/U-Mass Station. A new or revised shuttle service to accommodate Harbor Point is also being seriously considered.

4. Parking Facilities

Parking, as it is now assessed, will match the demands of Harbor Point. Housing plans envision parking sufficient for resident's needs at a ratio of 1.0 space per dwelling unit. An additional 200 on-street spaces will be provided for Harbor Point visitors. It is important that this parking be monitored, as a shortfall or poor management can lead to wanton on-street parking where traffic could be impeded or where adjacent developments could be adversely effected. A detailed description of the parking plan for Harbor Point is contained in Part III.

5. Pedestrian Patterns and Volumes

The Harbor Point development will generate an increased volume of pedestrian traffic. Pedestrian flows will be focused on Mt. Vernon Street as a spine. Persons who walk to work are expected to prefer the northerly side of Mt. Vernon Street from the housing area. Others who use public transportation and walk from the Red Line Station at JFK/U-Mass would use Old Colony Avenue to connect with Mt. Vernon Street.

The Harbor Point development proposal will provide for pedestrian circulation improvements. Besides widened sidewalks along Mt. Vernon Street, major traffic-free walkways are proposed within the housing development and along the shoreline. Proposed roadway improvements will include new sidewalks, lighting and crosswalks.

D. PUBLIC UTILITIES AND SERVICES

1. Water

Although the 1504-unit Columbia Point housing project has a potential daily water consumption demand of 363,000 gallons per day (GPD), current use is only an estimated 96,800 GPD. Therefore, even though it is estimated that the proposed 1282-unit development will have a maximum average daily demand of 306,370 GPD, an increase of 320% over current usage, it would still be 16% less than would result if all 1504 units were presently occupied. In addition, when one considers that the average daily water demand for the City of Boston in 1983 was 125,300,000 GPD, it is clear that the proposed development will increase total city-wide demand by only 0.24%.

The redevelopment of Columbia Point will utilize the existing water mains located in Montpelier Street, Blair Road, and approximately 70% of the mains in Monticello Street. Three existing connections to the 12-inch main in Mt. Vernon Street will also be utilized to service the project. Approximately 2,000 feet of new 8-inch water main will be placed in the northwest section of the site which is presently open space. The proposed line will extend from the northeast corner of Monticello Street to the southeast corner of Monticello Street (200 feet east of Mt. Vernon Street). New connections from the laterals to the proposed buildings will also be required.

With respect to the regional water supply system operated by the Massachusetts Water Resources Authority (formerly operated by the MDC), the Massachusetts Water Supply Policy Study (MWSP) has estimated Boston's safe yield to be 141.7 MGD. Thus, the City's 1983 consumption is within the estimated safe yield (the regional system as a whole, however, is operating at about 10% above dependable safe yield). By 1990, the MWSP study project an average daily consumption of 153.26 MGD for Boston and a maximum daily consumption of 161.01 MGD, resulting in an average daily deficit of 11.5 MG.

In order to meet projected demands, the MDC had investigated the feasibility of several major projects to increase dependable safe yield, including the Northfield Mountain Water Supply Study, which would divert water from the Connecticut River watershed for MDC use, thus yielding an estimated 72 MGD, and the Miller's River Basin Project, yielding an additional

48-76 MGD. In addition, the Boston Water and Sewer Commission has made significant improvements to the City's water distribution system and has established a conservation program, including an extensive leak-detection program, which has reduced daily water demand by nearly 15 MGD since 1976.

Daily water consumption, however, can also be reduced significantly by the implementation of conservation measures within the development itself. The Massachusetts State Plumbing Code now contains provisions for the use of water-efficient fixtures and water-conserving devices in the future construction of homes, offices, and other buildings and prohibits tankless heaters in any large project. According to the New England Interstate Water Pollution Control Commission, an effective water conservation program can be expected to reduce daily water system demand by approximately 20%.

Despite its insignificant percentage of the deficit, Harbor Point must still play a role in trying to reduce its water consumption. Water conservation measures to be used in the project include inspection for water line leaks and inspection of utility line support to check for settlement. Aerators (low-flow devices) will be used on kitchen and bathroom faucets and shower heads to reduce water flow. Water dams also may be put in toilet tanks for further conservation measures.

2. Sewerage and Drainage Systems

The sanitary sewage to be generated by the proposed Columbia Point redevelopment is estimated to be 278,520 GPD. Currently, it is estimated that 88,000 GPD of sewage is generated, down from a full-occupancy potential of 330,000 GPD.

Two existing 18-inch sewer lines lead from the project site to the 36-inch main beneath Mt. Vernon Street. These two connections will be utilized to serve the proposed project. At present, it is expected that the sewer lines in Montpelier Street, Blair Road, and a portion of Monticello Street will also be retained. Approximately 1000 feet of new sewer line will be installed, mostly in the northeast portion of the site. In addition, new building connections will be required.

Currently, it is estimated that the Mt. Vernon Street sewer handles approximately 215,000 gallons of sanitary sewage in an average day. Separation of the former combined system has augmented the flow capacity of the

sewers serving the Columbia Point peninsula. In addition, the design flow of the project to the Mt. Vernon Street trunk sewer is less than the design flow originally estimated for the Columbia Point housing project.

In regards to site drainage, preliminary calculations indicate that the proposed impervious area (buildings, roofs and pavement areas) will be approximately the same amount as the existing impervious area of 22 acres. Thus, there should be little or no increase in runoff from the project site.

The proposed drainage system will, for the most part, utilize major portions of the existing system and connections to the 10.5-foot diameter drain in Mt. Vernon Street. All runoff from the project site will enter into a standard catch basin-to-manhole drainage system. From the site, the runoff will flow into the Mt. Vernon Street drain, which is an extension of the Boston Main Interceptor, and into Boston Harbor.

3. Private Utilities

The existing Columbia Point housing project is presently serviced from lines originating in Mount Vernon Street. Electrical needs for the area are provided by 6-3" fibre ducts while a 30-inch steel gas main also runs under Mount Vernon St. A 4-inch mortar and tile duct and one standard transite duct provide telephone communications in the area. The utilities do appear adequate to meet the needs of the Harbor Point project with one major exception. That exception is the electrical system serving Columbia Point which is already obsolete because of the voltage that it generates.

Although Boston Edison Company supplies 13,800 volts to the site, only 4,160 volts is distributed since the BHA owned generators at the Housing Project do not generate enough voltage. Therefore, Boston Edison had to place a new transformer on Mt. Vernon Street in order to supply the present facility with power, and will also supply the new development with the transformers necessary to distribute the required voltage once the old system is replaced. The developer will work closely with each private utility company to assure the ultimate adequacy of their networks to service the project area. The necessity of maintaining service to existing residents and facilities will be taken into account when work is being conducted on these utilities during the construction phase.

4. Solid Waste

Development of the project site will require the demolition of 17 of the Columbia Point housing project's 30 existing buildings. Solid waste generated from this demolition will consist principally of stone, masonry and brick material, concrete, structural steel and wood. Certain of the demolition material, particularly brick, stonework, steel and wooden structural members, and other masonry and metal components, can be recycled for further use such as material for road pavement, or be sold for scrap, thus reducing the amount of waste requiring disposal.

Site preparation, excavation and actual construction activities would also generate debris. Depending upon the quality of the fill, some of this excavated material may be used as fill for the demolished buildings. Much of the upper soil surface is fill material, consequently, its quality is poor and suitability for site preparation or fill is probably limited.

The disposition of demolition- and construction-related solid wastes would be the responsibility of the private contractors. Those wastes which are not recycled or otherwise reused must be disposed of at disposition sites approved by the Department of Environmental Quality Engineering. At the present time, there are three approved commercial landfills in DEQE's Northeast (Boston) region which could accept demolition and construction wastes.

Harbor Point itself will result in the generation of garbage and other wastes by the proposed residential and commercial uses. It is estimated that full development of the site would generate an estimated 69 cu. yds. of solid waste per day, or approximately 25,185 cu. yds. per year, as follows:

Housing

(3.3 lbs./capita; 151 lbs/cu. yd.) 66 cu. yds./day

Commercial

(4 lbs./1000 sq. ft.; 400 lbs./cu.yd) $\frac{3 \text{ cu. yds./day}}{69 \text{ cu. yds./day}}$

The development's management will be responsible for removing solid waste, and will hire a private contractor to carry out the collection and disposal of the material. All contractors must be licensed by the city and the disposal sites must be approved by the

Massachusetts Department of Environmental Quality Engineering. Currently, 6 private commercial landfills and 2 resource recovery facilities approved by the Commonwealth are available within the Northeast Region for the disposal of commercially collected wastes. In addition, the City of Boston has recently announced its intention to enter into an agreement with the operator of a resource recovery facility to dispose of waste at facilities outside the city.

E. PHYSIOGRAPHICAL IMPACT

1. Topography and Land Features

The topography of the existing site is relatively level and no major alterations are proposed as part of the redevelopment. Since the buildings involved in the project are not within the 100-year flood boundary, it would be unnecessary to elevate the site due to flooding hazard alone. Additionally, any significant change in topography would have to take into account the effects on existing utilities and buildings to remain. Some minor changes in elevations, however, will occur due to grading and landscaping considerations.

Rip-rap originally placed along the waterfront has deteriorated in numerous places, allowing substantial erosion to occur. The proposed method of treatment is to replace the rip-rap and straighten the shoreline. Fill would be necessary only where the land has eroded or where necessary to protect the beach, thus allowing the creation of the variable width (50 foot minimum) public access way along the shoreline.

2. Soil and Geological Conditions

Because of the existing soil structure in the Columbia Point area (uncompressed fill material underlain by organic and marine deposits and glacial till), the load bearing capacity is estimated to be fairly low. Complete soil borings and analysis have been conducted and described in Appendix F.

3. Groundwater Impact

According to the results of groundwater borings conducted in 1983, groundwater elevations on the site ranged from 11.5 to 17 feet below the ground surface and any excavations below these elevations will penetrate into the water table. In addition, these levels may be expected to vary with precipitation, season, temperature, and construction activity on the site. As a result, some site excavations are expected to require dewatering in order to ensure the maintenance of existing groundwater levels as close as possible to the construction sites since any lowering of the groundwater table may cause some compression in the miscellaneous fill material underlying the site. This could result in damage to the remaining buildings.

Recharging of the water table immediately outside the excavation also can prevent extensive lowering of the

water table. Within the excavation site, pumping by sumps as an additional control may be required to reduce seepage. Groundwater pumped during dewatering operations would be channeled into drain lines in the area. However, if the groundwater has much sediment, it could deposit this sediment in the drain lines and result in their partial clogging. Suitable precautions, such as the use of equipment designed to trap or reduce the discharge of solids into the drainage system, can be employed to mitigate the adversity.

If foundations intrude into the water table, construction capable of resisting water pressures and able to compensate for the uplift pressures of the groundwater may be necessary. Therefore, basement slabs may require either an underfloor drainage system or a structured mat to resist hydrostatic uplift. Waterproofing of basement levels also would be necessary.

4. Tidelands

Section 18 of Chapter 91 provides that the Department of Environmental Quality Engineering may license a project involving non-water dependent uses on tidelands if it determines that the following conditions are met:

- (1) the project serves a proper public purpose;
- (2) the project provides a greater public benefit than public detriment to the rights of the public in the affected tidelands; and
- (3) the project is consistent with the policies of the Massachusetts coastal zone management program.

The following discussion describes in more detail how the Project satisfies each of these three statutory requirements.

4.1. The Project Serves a Proper Public Purpose.

The project will serve a number of important public purposes. These include the following:

- a. Elimination of existing blight. The conditions currently existing at Columbia Point are well-known. Of the thirty (30) existing buildings located at the housing project, twenty (20) are vacant and boarded up, and cannot be rehabilitated. A recreation area at the site is poorly maintained and underused.

The area along the water is in poor physical condition, with deteriorating riprap, many weeds, and other signs of neglect. The current design of the area, with a dense clustering of high-rise buildings, affords little view of the water, either for area residents or for citizens of surrounding communities.

In place of these conditions, the Project will provide an attractive and well-planned mixed-income residential development, with increased open space and orderly street layout. The site will be opened both physically and visually by a design that centers around a mall running from Mount Vernon Street to the water. In addition, a waterfront park will be created for public use. Improved physical conditions, as well as the changes in design and layout, will create a public impression that the development is open and safe, thereby promoting public use of the recreational facilities.

- b. Expansion and improvement of low-income rental housing. Currently, only 350 residential units at Columbia Point are inhabited. Residents suffer from the undesirable living conditions resulting from Columbia Point's isolation and physical deterioration.

Upon completion of the Project, 400 low-income rental units will be available, thereby accommodating all current tenants. Moreover, the quality of life for these residents will be significantly enhanced. They will benefit from increased services and amenities, the advantages of living in a mixed-income community, and the improved physical environment of the redesigned residential development. The generous public funding expected for the Project is convincing testimony to the importance of the low-income housing improvements that the Project will provide.

- c. Improvement of waterfront park facilities. An active recreational area currently located at the project site is isolated and in poor physical condition. Residents and non-residents alike have concerns about personal safety in this area. For these reasons, this recreational area is rarely used by the public.

The Project includes the creation of an approximately 5.5 acre MDC park along one half mile of waterfront. This park constitutes a significant water-dependent use of the filled tidelands at the site. The park will provide opportunities for biking, walking, jogging, and fishing, as well as picnicking sites, a viewing terrace, and a beach area. The park will form a link in the regional waterfront park system which is proposed to run from Castle Island to the Neponset River.

Public access to the new waterfront park will be facilitated by parking that is available nearby at the University of Massachusetts and the Kennedy Library, Bayside or the BSWC site, and by a public bus stop in the center of the development. Because of the rehabilitation of the neighboring housing project and improvement of services, the public perception of the waterfront area will change, and public use will increase.

- d. Expansion of rental housing supply. In addition to improving the low-income rental stock, Harbor Point will provide 882 new market and moderate rate rental units. More importantly, the Project will create a vital, racially and economically mixed community in place of the existing housing project that has physically and socially isolated its low-income residents.
- e. Additional public purposes. The Project will serve several additional purposes. City property tax revenue will increase once new buildings are constructed and existing buildings are rehabilitated. In addition, low-income residents will be eligible for employment in the development, construction, and management of the Project, and programs will be implemented to encourage development of such employment opportunities.

4.2. The Public Benefits Will Outweigh the Public Detriments to the Rights of the Public in the Tidelands.

As described in detail above, the Project provides extensive public benefits. Many of these directly affect water dependent uses and thus enhance public enjoyment of the tidelands. In addition, as set forth below, the Project has been designed to

minimize any potential detriments that might result from the anticipated changes at the Columbia Point site.

Revitalization of the waterfront area is the principal public benefit relating to water dependent uses, and it alone outweighs any of the accompanying detriments. As described above, the Project will revitalize the waterfront area, which is now blighted and rarely used by the public. A waterfront recreational area that is attractive, well-maintained, and inviting to the public will be provided. The residential development has been designed to increase and enhance water views for residents of both the development and the neighboring communities.

The new MDC waterfront park will increase actual public use of the waterfront area. Considerable attention has been devoted to design features, including physical features of the site as well as landscaping and signs, that will make the park accessible and inviting to the general public. Bikeways and walkways will provide access to the waterfront. Parking will be available at sites adjacent to both ends of the park, and MBTA buses will stop nearby. The planned uses for the waterfront area are compatible with the uses now existing at other waterfront areas on Boston Harbor, and, in fact, the planned park will form a link in a proposed "necklace" of MDC parks along Dorchester Bay.

The existing active recreation area that will be closed is a rarely used, poorly maintained, and unsafe facility, the activities for which are unrelated to the water. Indeed, the Boston Redevelopment Authority is now developing plans for the creation of new active recreational facilities at other, more suitable sites in the vicinity of the Project. The unique features of the waterfront location are best appreciated through the kinds of activities, such as picnicking, viewing, or walking, that will be encouraged at the waterfront park planned as part of the Project.

Construction related noise and air quality impacts will be minimized by use of standard control practices, and no permanent negative impacts on the Project site or neighboring sites are anticipated. Rather, there will be considerable long-term improvements arising from the construction of

Harbor Point through the design and maintenance of the site. After construction, existing wind impacts in the area of the Project should be significantly reduced, and the site's layout will result in a reduction of current shadow impacts. Particular attention will be paid to the new waterfront park so as to assure sunny locations for public enjoyment throughout the day in every season.

In summary, the construction of Harbor Point will result in a major redevelopment of a waterfront area that has suffered from serious, longstanding problems. The changes planned for the area will necessarily alter the layout and land allocation at the site. However, whatever minor negative impacts may result from these changes are far outweighed by the public benefits that will be derived from the redevelopment and revitalization of the peninsula.

4.3. The Project Is Consistent With the Policies of the Massachusetts Coastal Zone Management Program.

The Coastal Zone Management Program (301 CMR 20.05(3)) encompasses twenty-seven policies, fifteen of which are relevant to the development at Harbor Point. They are discussed in the following paragraphs.

- a. Environmental impacts of shoreline construction; Policies 1, 2, 3, 4, 5, and 10. The object of these policies is that shoreline projects be conducted in such a manner that they do not damage water quality or other marine resources and that they conform to federal and state requirements relating to the protection of the environment.

The site is a significantly altered urban waterfront site. Sensitive environmental resources are not found there or in the immediate vicinity. Water quality will be protected at the site during construction through compliance with an order of conditions to be issued by the Boston Conservation Commission pursuant to the Massachusetts Wetlands Protection Act, M.G.L. ch. 131, 40. In addition, the Project will be carried out in a manner that minimizes any potential negative environmental impacts and conforms to all applicable statutes and regulations relating to environmental protection. Overall, there will be long range benefits to the water and contiguous land areas as a result of the improvement of the condition of the riprap at the water's edge, improved maintenance of

the waterfront area, and the elimination of blighted and unsafe conditions that currently exist at the site.

- b. Compatibility with the surrounding community: Policies 12 and 18. The object of these policies is to ensure that proposed coastal developments are compatible with the area's scenic and historic resources and the character of the surrounding community.

The Project will not change the residential character of the site. It will, however, improve that character by upgrading the physical condition of housing at the site and by eliminating the physical and social features that have contributed to the isolation of Columbia Point from neighboring communities. Further, the Project is not located at or near a site of significant historical value, and thus considerations of historic preservation are not applicable.

- c. Revitalization of the waterfront: Policies 20 and 27. The object of these policies is that coastal development projects contribute to the redevelopment, revitalization, and enhancement of urban waterfronts and the expansion of visual access and water-dependent uses.

The Project will cause the revitalization of a significant segment of the urban waterfront. The blighted conditions at Columbia Point will be eliminated. The new residential development will be designed so that water views will be maximized for the enjoyment of the residents of both the development itself and neighboring communities. Improvements at the site will eliminate public fear of crime and vandalism and so will encourage public use and enjoyment of the waterfront area.

- d. Expansion of recreational facilities: Policies 13, 21, 22, 23, and 24. The object of these policies is that coastal area developments be designed to increase recreational opportunities for the public, through such means as improved public access, links to other coastal recreational areas, and improved maintenance of recreational facilities.

The creation of a new waterfront recreational

area, with opportunities for waterside hiking, biking, picnicking, and viewing, will result in a significant expansion of public recreational opportunities and in water-dependent uses at the site. Although an existing active recreational area will be eliminated, as described above, it has not served the public because of its isolation and deteriorated condition. In contrast, the new waterfront park area will invite public use.

The new site plan has been designed to create views from all parts of the site and Mt. Vernon Street. This is not possible now because of the street layout and building placement. The new development's roadway pattern will establish a water orientation for the site. The buildings will be placed front to back on the new streets, further emphasizing a water view.

The Waterways Act, as amended, requires DEQE to issue a new license after a public hearing, if there has been a change in use or structural alteration on the filled land that produces nonwater dependent use of tidelands. To the extent Columbia Point requires changes in use or structural alteration that result in nonwater dependent use of tidelands, the project will need a new license from DEQE. On May 15, 1985, Peninsula Partners (as developer) and the Boston Housing Authority (as land owner), jointly applied for a Chapter 91 license. On June 28, 1985 a public hearing took place at which seven people representing both the public and private spoke in favor of the proposal. There was no opposition at that time.

Between April and July, 1985, a series of almost bi-weekly meetings took place between the applicants, DEQE, CZM, MDC, BRA, CJA, and GCA. Major issues to be resolved before license approval could occur include: (1) ownership and maintenance of the waterfront park; (2) design and location of the pool/clubhouse; (3) public accessibility to the waterfront park; and (4) plans for the replacement of the active recreation space. Many of the tidelands related issues were dealt with by the BRA as part of their review for consistency with Harbor Park - the City's new plan for the waterfront.

It was clear from the first meeting that public

ownership of the waterfront park was strongly preferred by all agencies. Since it already owns most of the waterfront land in the area, and the park will be publicly owned (the developers will pay for its design and sign a maintenance agreement) the MDC was considered as the most likely agency to gain ownership, contingent upon submission and approval of a funding proposal from the developers.

Concern over the relationship between a public park and a private recreational facility led to a detailed review of the design and location of the pool/clubhouse. Initially the agencies objected to the presence of a visible private facility abutting a public area. In order to meet these concerns, the final plans illustrate the consistency of the overall design concept of a residential waterfront community, visually and physically accessible to the public. Since no other areas for the pool/clubhouse complex were available, it has been agreed that the location will remain along the waterfront and that limited, paid public membership will be made available. Figure VI-15 shows the difference between public and private ownership.

Replacement of the active recreation space is still under discussion and a task force is being established to identify a location for the replacement. The BRA is arranging for appraisal of the existing area in order to begin the NPS approval process. Issuance of the C.91 license will mean that DEQE has determined that the structure or fill will serve a proper public purpose, and will provide a greater public benefit than public detriment.

The Harbor Point Development project should have no difficulty establishing compliance with the standards established under the Waterways Act, since it represents an ambitious effort to satisfy a compelling public need for decent and safe low- and moderate-income housing within a mixed income community. The generous public funding expected for the project is strong proof of the magnitude of the public need for revitalized housing at Columbia Point.

In addition, the project will benefit the public by providing recreational facilities.

UBLIC/PRIVATE PROPERTY
ARBOR POINT

PUBLIC/PRIVATE
PROPERTY
HARBOR POINT

SITE SHELL PLAN

1" = 50' 4" = 100'
GORDY CLARK AND ASSOCIATES

FIGURE VI-15

SITE SHELL PLAN

1" 55' 4 11 55
DOODY CLARK & ASSOCIATES

FIGURE VI-15



PRIVATE

One sharp focus of these recreational facilities will be the waterfront, where shoreline land will be devoted for public use and enjoyment. One of the features of the project plan calls for use of a belt of land alongside the existing shoreline as a public park. This walkway-bikeway will afford the public access to the waterfront for recreational purposes, and will constitute a water dependent use of part of the filled land on the Columbia Point site.

The public access provided along the waterfront will help alleviate the isolation factor that has plagued the Columbia Point housing project. The minimum of 50 feet of open space will encourage recreational activities and serve to connect the rest of the peninsula by introducing an aesthetically pleasing and safe environment.

F. WATER QUALITY AND FLOODING POTENTIAL

1. Water Quality

Construction activities could result in some soil erosion, resulting in increased turbidity and sedimentation in the coastal waters, as well as increasing suspended solids in the surface runoff from site clearance and excavation activities, building demolitions, and wetting down the site to reduce dust emissions. These activities could result in causing a short term adverse impact on Dorchester Bay's water quality. In particular, the replacing of the rip-rap along the water's edge, while having a long-term beneficial impact, could have some temporary effects. Appropriate sedimentation controls, such as the use of haybales, channels to direct runoff into the existing catchment system, crushed stone filtration wells, sedimentation basins, or siltation curtains, can be employed to prevent suspended solids from entering the bay. Operational activities also are available including the phasing of construction to minimize the amount of exposed soils, the covering of disturbed areas and storage piles, and rapid vegetation. Any construction within 100 feet of the shoreline will require obtaining a wetlands permit from the Boston Conservation Commission and will be subject to compliance with any Order of Conditions issued under this permit.

Contamination of surface runoff also can result from accidental spills of oils, grease and fuel during construction maintenance operations. These impacts may be minimized by establishing a central staging area for all construction equipment.

Drainage from the site would be captured by the new and existing drainage system. All storm water from the site would be channelized into this system. Potential impacts from roadway grease and oil could be mitigated by the use of oil traps or oil absorption techniques at the source of the runoff.

2. Flood Potential

The proposed redevelopment of the Columbia Point housing site will be marginally affected by coastal flooding. All of the proposed buildings lie outside of the 100-year flood boundary (Zone A3) and are not subject to either severe flooding or wave attack for that frequency event. Portions of two of the buildings may lie within Zone B. The buildings will be set above

the 100-year flood elevation.

The project will not significantly affect the impervious area or drainage at the site, since the net area covered by building footprints after construction will be approximately the same. Increased road surface will be relatively small and parking areas will cover approximately the same surface areas.

G. VEGETATION AND BIOLOGICAL RESOURCES

1. Vegetation

Vegetation on the site of the Columbia Point housing project is sparse, consisting primarily of wild grass and a few trees once planted as landscaping. In contrast, the proposed redevelopment of the site will incorporate the intensive use of landscaping. The proposed town green will provide a landscaped corridor from Mt. Vernon Street to the waterfront, and the main vehicular roadway of the site will be lined with trees chosen for their adaptability to the coastal environments. In addition, each building will be individually landscaped within an overall master concept, and lawns will be planted as extensively as possible in order to provide for a suburban environment.

2. Wildlife

As noted previously, the predominant wildlife in the project area are those species common to an urban environment, including small rodents, pigeons, sparrows, seagulls and starlings. In addition waterfowl also frequent the coastal waters off Columbia Point. Project activities will disturb the ground animals, causing them to move their habitat, but will have no significant long-term effect on rodent or ornithological life. In particular, demolition and land preparation activities and street reconstruction will displace rat populations inhabiting old sewer lines and basement areas. This displacement will require rat control efforts prior to these activities to eliminate health risks. After completion, the project will offer a larger and more hospitable habitat for wildlife (birds in particular) by increasing the vegetation in the project area.

3. Aquatic Biology

The project should have a very limited effect on aquatic life in Dorchester Bay. Shoreline construction activities, particularly the replacement of missing rip-rap, may affect some of the new bethnic communities which may be established along the eroded edge. Suspended solids entering the water may also affect marine life by increasing turbidity. However, several precautions may be taken in order to ensure the integrity of the coastal waters. The banking of soil and the covering of loose fill and the proper collection and disposal of construction residue will

help to diminish the quantity of suspended solids entering the bay. Another method of erosion control which may be considered is the installation of haybales along the bottom of all construction slopes. These bales would be placed at the limits of all disturbed or constructed embankments. The bales would be securely anchored in place with stakes to prevent overturning, flotation or displacement. The bales would be frequently inspected and repaired or replaced as often as possible. When the site is stabilized with pavement or vegetation, the bales would be removed.

H. AIR QUALITY

1. Air Quality Modeling

At the direction of the Massachusetts Department of Environmental Quality Engineering's Division of Air Quality Control, carbon monoxide concentrations were calculated on a microscale basis utilizing the Guidelines for Air Quality Maintenance Planning and Analysis Volume 9 (Revised). Input variables for the model included vehicles per hour as derived hereinbefore, pavement width and length, receptor height and location, as well as meteorological surface air stability and wind speeds. Carbon monoxide emissions per vehicle were derived from the EPA's Mobile Source Emissions Model MOBILE-3. Vehicular mix used in the program was derived from the Massachusetts Registry of Motor Vehicles registration records. Surface air stability, a property of the atmosphere which determines the amount of vertical mixing, is measured by six classes, designated A thru F. Stability Class A is the most favorable meteorological condition in terms of dispersion of pollutants, while Stability Class F is the most unfavorable (worst) meteorological condition and results in the highest ground level concentrations.

As a result of on-going consultation and coordination with the Division of Air Quality Control of the D.E.Q.E., the one- and eight-hour CO concentrations were calculated for the 'worst' meteorological conditions in the study area at the following five intersections.

- o Columbia Road/Expressway Southbound Off-ramp
- o Columbia Road/Expressway Northbound Off-ramp
- o Day Boulevard/Day Boulevard Connector
- o Mt. Vernon St./Day Boulevard Connector
- o Morrissey Boulevard/Freeport Street

The "worst case" condition is that combination of wind direction and speed, atmospheric stability class, and peak hour traffic volumes which would produce the greatest pollutant level on a receptor. Stability Class D was adopted for analyzing CO concentrations at the direction of the D.E.Q.E. Although Stability Classes E and F produce higher CO concentrations, these conditions are infrequent and short-lived. Other meteorological parameters established for the analysis included a wind speed of 1.0 meter/second, and an ambient temperature of 33 F.

A background CO level of 3.0 parts per million (ppm) (1-hour) and 1.5 ppm (8-hour) was established for existing conditions. These values were chosen due to the close proximity of the site to the Southeast Expressway. The background levels were adjusted for the year 1990 using DEQE's Technical Memorandum #3. Background levels for the year 1990 were determined to be 2.4 and 1.2 for the 1-hour and 8-hour analysis, respectively.

Derivation of the 8-hour CO concentrations was obtained by using a persistence factor. A persistence factor, as defined by the DEQE's Division of Air Quality Control (Technical Memorandum #2: Persistence Factor) represents the percentage of a 1-hour carbon monoxide recorded value at a particular site that will persist over an 8-hour period. The persistence factor ranges from 0.6 to 0.7. For this study, a persistence factor of 0.7 was selected for use.

2. Air Quality Impact Assessment

The air quality analysis was performed at the five intersections for the existing (1984) and future (1990) years. The future analysis considered the two BRA Alternatives found within Part VI.C., as well as a "no improvements" case. The alternatives assumed a 1400 unit housing project at Harbor Point. Analysis of these intersections utilizing Volume 9 revealed the "worst case" 1- and 8-hour anticipated CO concentrations as shown on Table 19. A discussion of the results of each of the study intersection is as follows:

a. Columbia Road/Expressway SB Off-Ramp

A three-story residential dwelling to the northwest of this intersection was evaluated as the sensitive receptor with respect to CO concentrations. No violations were noted of either the one- or eight-hour standards. Although the existing 8-hour concentration of 5.1 ppm will increase steadily in the future to approximately 8.0 ppm for the 1990 Build condition, no violations are expected.

b. Columbia Road/Expressway NB Off-Ramp

No existing violation of the 8-hour standard were noted in the CO analysis at the street level entrance to the JFK/U-Mass Station. The 1984 eight-hour CO level of 3 ppm will increase to 8.9 ppm in 1990, or level considered equal to the NAAQS maximum. It should be noted that this analysis

TABLE 19

CO EMISSIONS

<u>INTERSECTION</u>	<u>1984 EXISTING</u>		<u>1990 ALT. A</u>		<u>1990 ALT. B</u>		<u>1990 No-Improvement</u>	
	<u>1-HR.</u>	<u>8-HR.</u>	<u>1-HR.</u>	<u>8-HR.</u>	<u>1-HR.</u>	<u>8-HR.</u>	<u>1-HR.</u>	<u>8-HR.</u>
Columbia Rd./X-Way S.B. Off Ramp	8.1	5.1	12.1	8.0	12.1	8.0	12.1	8.0
Columbia Rd./X-Way N.B. Off Ramp	11.3	7.3	13.4	8.9	13.4	8.9	13.4	8.9
Day Blvd./Day Blvd. Connector	6.1	3.7	9.2	6.0	8.4	5.4	10.5	7.0
Morrissey Blvd./Freeport St.	13.0	8.5	10.4	6.8	10.4	6.8	10.4	6.8
Day Blvd. Connector/Mt. Vernon St./Morrissey Blvd.	5.4	3.2	3.2	1.8	4.1	2.6	3.7	2.1

assumed full operation of the traffic signals in both years. Currently, the lights at this intersection function in a flashing mode and permit virtually uninterrupted flow on Columbia Road. Because of this, it is assumed that the 1990 8-hour CO level will be lower than 8.9 ppm.

c. Day Boulevard/Day Boulevard Connector

The chosen sensitive receptor for this intersection, the MDC police station, does not experience any CO levels above the acceptable standards, either currently or in 1990. The 8-hour CO concentration for the 1990 Build alternative will be less than the existing value. This is primarily due to the decrease in automotive emissions but is also dependent on the improvements noted in Section VI-C.

d. Mt. Vernon Street/Day Blvd. Conn./Morrissey Blvd. Off-Ramp

This former rotary intersection was recently reconstructed as a simple 4-way intersection with signalization. Since most buildings in the area are a substantial distance from the intersection, the new addition to the Bayside Expo Center is the closest receptor. No violations of the standards presently occur nor will occur in the future.

e. Morrissey Boulevard/Freeport Street

A building located on the northwest corner of this intersection currently experiences an 8-hour recording of 8.5 ppm. This level will steadily decline in the future and by 1990 will be 6.8 ppm under the Build alternative. The BRA's proposed improvement do not impact this intersection.

Of the 1990 values, all but the Columbia Road/Expressway NB ramp are well within the Massachusetts and National Ambient Air Quality Standards (NAAQS). Thus, it can be concluded that the proposed developments on Columbia Point peninsula will not interfere with the attainment and the maintenance of the NAAQS for CO.

While the proposed addition to CO levels created by the various developments on Columbia Point will not cause a violation of air quality standards, some measures could be undertaken to reduce projected CO levels.

Traffic engineering design of the roadway system can

minimize air pollutant levels. Well-timed signals and up-graded geometrics can be used for the purpose of attaining a more efficient operation of the infrastructure. Institution of the traffic mitigation measures outlined in Section VI-C1.3 will also reduce congestion potential, smooth out traffic flow and lower emission levels.

In addition to the above, measures will also be taken to mitigate air pollution impacts during construction pursuant to DEQE regulations. The primary pollutants which may occur as a result of construction are dust and emissions from construction equipment. The Contractor will be made aware of regulations concerning air pollutants (310 CMR 7.09) and will be responsible for ensuring that all equipment have the required air emissions controls. The Contractor will also be responsible for the control of dust by either seeding or paving areas as soon as possible. During the interim, water will be frequently used in dry weather. The Contractor will notify the Department in writing twenty (20) days prior to the initiation of any work performed on the site.

I. NOISE LEVELS

1. Noise Regulations

The proposed Harbor Point development will affect noise levels at the site and the surrounding area insofar as vehicular traffic volume in the immediate area will increase. The proposed project does not introduce new types of noise sources in the area, nor are receptors (buildings) constructed closer to these noise sources than the existing buildings.

The U.S. Department of Housing and Urban Development (HUD) has established noise policy and criteria (24 CFR Part 51) to determine the acceptability of acoustic environments for Federally-assisted housing developments. According to the HUD criteria, an outdoor day-night sound level exceeding 65 dB(A) at a noise sensitive location is judged as "normally unacceptable" for purposes of providing funding of projects.

The City of Boston Air Pollution Control Commission has promulgated regulations for the control of noise within the City. These regulations prohibit noise emissions at such levels as to cause a condition of noise pollution and restrict, among other things, noise emissions according to zoning district and from construction sites.

For residential districts, the maximum allowable noise level measured at the lot line of a residential use is 65 dB(A) during the daytime and 55 dB(A) at other times, and for a business district, 65 dB(A) at any time. Noise from construction activities in a residential district is not to exceed 75 dB(A) (L10), measured at 50 feet from the nearest active construction device on the site, and in a business district, 80 dB(A) (impact devices are exempted from this regulation).

Finally, the Commonwealth of Massachusetts has a noise standard that basically consists of a prohibition of pure tone noise generation and of increases in ambient noise levels in excess of 10 dB(A).

2. Noise Impact Assessment

2.1 Construction - Related Noise

Short-term noise impacts will occur during the construction period of the proposed project, resulting from demolition, site preparation, and

construction activities. These impacts, however, would not occur at the same period of time but would be spread over several years. Since specific construction schedules have not yet been developed for the elements of this project, only very general conclusions can be provided, based on available studies, to estimate the noise levels and impacts expected to be associated with the project's construction activity.

The ambient noise environment of the project environs will be affected by a noticeable increase in noise levels during the working hours from the various pieces of construction equipment and trucks, which produce fairly high levels of noise. Typical noise levels from various pieces of construction equipment range from 68 dB(A) to over 100 dB(A). The single noisiest piece of equipment is the pile driver, with peaks of 105 dB(A). Other loud pieces of equipment include diesel trucks, tractors, and pavement breakers. Although pile drivers and jack hammers are extremely noisy, they are generally prevalent only during the excavation and foundation phases whereas trucks, while somewhat less noisy, are present throughout the construction period.

Noise levels experienced during the construction of the Columbia Point project would vary greatly during any one day and over the entire construction period, and would depend on the particular phase of construction, the type and number of equipment being used, the location of the equipment, and the average noise level. Maximum noise levels would occur if all equipment were operating simultaneously. In reality, however, all equipment would not be operating at one time, or near one point, and some pieces may be below grade or otherwise shielded. In addition, since sound relationships are logarithmic, two or more machines producing the same noise energy would add only 3 dB(A) each; and, if one noise source were much louder than the other, the lower one would not be heard or measured in the overall sound level. Moreover, continuous or semi continuous operation of construction equipment allows individual noise sources to blend in with other on-going construction activity. Pile drivers, however, because of their intermittent generation of noise, are a more prominent noise source and therefore are more susceptible to disruption and annoyance.

For demolition equipment, field measurements in the City of Boston indicated ranges from 75 to 84 dB(A) (Leq) measured at a distance of 50 feet. The major noise source was the engine noise of the crane or bulldozer under observation; other on-site noises included heavy trucks in low gear, falling debris striking the ground, and the crane clamshell bucket striking the structure. However, demolition noise levels could be expected to be higher when a ball or jackhammer is used to break up concrete floors and foundations.

Other than pile-driving operation, the excavation phases probably would produce the highest concentration of noise generation. This phase would be expected to require the greatest daily volume of trucks (to remove the excavated material) as well as other major noise-generating equipment, such as backhoes and front-end loaders. Noise levels associated with this period, based upon a mix of construction equipment, would result in maximum external noise levels of approximately 90 dB(A) at a distance of 50 feet from the noisiest piece of equipment.

Noise levels of demolition and construction equipment can be reduced considerably by the use of commercially-available muffled equipment and by the installation of mufflers and housing on existing equipment. EPA studies have indicated possible reductions of from 1 to 18 dB(A), depending on the piece of equipment and the type of control used. Other studies indicate even further reductions are possible by using state-of-the-art abatement equipment, including a significant reduction in noise emitted by pile drivers, one of the loudest pieces of construction equipment which will be used on the site.

Other mitigation measures that can be employed to reduce excessive noise generation from construction activities include: 1) selecting the quietest of alternative items of equipment (e.g., hydraulic tools instead of pneumatic impact tools), 2) replacing individual operations and techniques by less noisy ones (e.g., using welding rather than riveting), 3) turning off idling equipment, and 4) scheduling equipment operations to keep average noise levels low, to keep noise levels relatively uniform in time, and to have the noisiest operations coincide with times of highest ambient levels.

For pile drivers, another quieting technique would be to auger holes for the piles to roughly half their final depth. Although this would not reduce the noise of the impacts, it would reduce the total number of pile impacts by approximately one-half. Whether or not this technique could be used would have to be determined by a soils or foundations engineer.

The implementation of the above-identified mitigation measures should sufficiently control noise from non-impact equipment to bring emission levels to below the 80 dB(A) limitation (L10) for construction work in business districts, as required by the Regulations for the Control of Noise in the City of Boston of the Boston Air Pollution Control Commission. Most measures also should be able to reduce levels economically to below 75 dB(A) for work in residential areas where applicable at the times of construction.

2.2 Noise Impacts to the Project Site

Future noise levels at Harbor Point would be directly influenced by both an increase in vehicular volume on Mt. Vernon Street and changes in flight paths or frequency at Logan Airport.

Traffic on Mount Vernon Street can be expected to increase in the future with the addition of new trips generated by the redevelopment. Additionally, vehicular volume on the roadway will also increase if Mt. Vernon Street is connected to the U-Mass roadway. Based on vehicular volume anticipated in the year 2000, noise levels from traffic may be expected to increase by a maximum of 2.5 dB(A).

Conversations with Massport indicate that no changes in flight paths are anticipated in the immediate future (personal communication with Mr. Richard Scozella, 12/7/84). Any proposed changes would require an evaluation of anticipated noise levels on sensitive receptors.

Thus, the only known factor that would influence future noise levels at the housing site would be the increase in vehicular traffic on Mt. Vernon Street. It is estimated that the day-night equivalent noise level (Ldn) will increase by a maximum of 2.5 dB(A) by the year 2000. Noise levels outside of buildings adjacent to Mt. Vernon

Street will be approximately 62 dB(A) at the western edge of the site. The noise levels will decrease rapidly toward the eastern boundary of the site as traffic volume declines, reaching 57.5 dB(A). (See Appendix O). Noise levels also will decrease rapidly in the interior of the site due to distance from the roadway and building attenuation.

With common building constructions, the interior environment will be acceptable to residents while the outdoor environment will be reasonably pleasant for recreation and play.

J. ENERGY RESOURCES

As a condition of receiving the BRA's tentative designation as developer of the housing site, the development team was required to utilize all practical and feasible means of minimizing fossil fuel consumption.

Several activities have been undertaken by the BRA and BHA to help ensure that this objective is met. They include: (1) a preliminary feasibility study by BRA staff of cogeneration-based district heating for the new development; (2) a study of energy conservation and supply opportunities by independent consultants jointly funded by the BRA and the BHA; and (3) initiation of a cooperative design review arrangement between MHFA and the Massachusetts Executive Office of Energy Resources (See Appendix M).

The efforts represent a two-pronged approach to energy conservation, one of which is to design the development and structures so as to minimize demand for heating and cooling services, and the other of which is to design the most efficient supply system possible.

1. Reduction of Energy Demand

Optimization of this goal will be achieved during the design review process by careful attention to site and building design details which affect energy loads. Design review will be conducted by four public agencies:

- (1) Massachusetts Housing Finance Agency (MHFA),
- (2) Boston Housing Authority, (BHA)
- (3) Boston Redevelopment Authority, (BRA) and
- (4) the Renewables Division of the Massachusetts Executive Office of Energy Resources (MEOER), under a special Memorandum of Agreement (MOA) with MHFA.

MEOER will be primarily responsible for review of all aspects of the development plans which will affect heating and cooling loads. Specifically, MEOER is expected to recommend (1) levels of insulation for walls, ceilings, doors and glazed areas (2) building orientation and use of landscape elements to take advantage of passive solar energy and (3) other techniques of building construction or site planning which will help reduce energy demand. Implementation of MEOER's recommendations will be required of the development team by the other three agencies.

2. Efficient Energy Supply

During the summer of 1983, prior to the selection the development team, the BRA undertook a brief study of the feasibility of several alternative supply systems. That study (see Appendix N) assumed 1,333 units of housing, used what were believed to be generally accepted, mid-range estimates of projected loads, fuel costs, escalation factors, and time frames, and compared five systems on a life cycle cost basis. Without consideration of special tax effects on the outcome of the analysis, the five systems, ranked from most economical to least economical, were as follows: (1) district heating and cooling using a diesel co-generator, (2) district heating and cooling using existing boilers with ice storage, (3) district heating and cooling using existing boilers, (4) conventional gas boilers in the basement of each building using BRA capital cost estimates, and (5) conventional gas boilers in the basement of each building using capital cost estimates provided by Corcoran, Mullins, and Jennison.

Encouraged by the tentative results of this preliminary study, the BRA and the BHA jointly funded further analysis by a team of district heating and conservation experts from Sweden's National Research Laboratory, the Energy Efficient Buildings Program at the Massachusetts Institute of Technology, and the Boston consulting firm of Metcalfe & Eddy. This report was completed on December 31, 1984 and is included in Appendix N.

The scope of the study consisted of the following:

1. Discussion of energy saving measures in the design and layout of the buildings at Columbia Point.
2. Finding an economical level of insulation.
3. Analysis of alternative heating and cooling systems.

For the new buildings at Harbor Point, energy savings can be realized with little (if any) added cost. Energy conservation measures include reducing the number of windows facing north, designing doors and entry ways to open up into wind protected areas, and placing utility rooms with heavy appliances in the northern half of the buildings.

The insulation analysis was done assuming that there were three building types at Columbia Point; rehabilitated multi-level brick buildings, new

multi-level buildings and new townhouses. For each of these types, it was assumed that the base case level of insulation would satisfy the requirements of the Massachusetts Building Code. The economic advantage of increasing that level of insulation was then investigated. The following insulation levels ("R" values) were used:

	<u>Walls</u>	<u>Ceiling</u>
1. Mass. Code	12.5	20
2. Medium Level	19	33
3. High Level	23	40

The critical assumption through much of the analysis is the estimated level of future fuel prices, particularly those of natural gas. There are published reports that predict prices to rise at 5 percent over and above the general inflation rate. But, it seems unlikely that this will occur over the entire 25 year period of analysis. Therefore, it was assumed that the price of natural gas will rise at a rate somewhere between 0 and 5 percent above the inflation rate.

The analysis indicated that if an insulation level above the Mass. Code level is to be provided, the Medium Level will be the most economical. Insulation to the High level results in diminishing returns on the investment. At the Mass. Code Level, the life cycle savings will be less due to similar installation costs associated with Medium Level insulation. In addition, if the fuel escalation rate proves to be above one percent, an investment in the Medium Level of insulation becomes cost effective as well as energy efficient.

Four alternative configurations for heating and two alternatives for heating and cooling were evaluated for Columbia Point. When evaluating heating only, the base case consisted of an individual unit gas-fired boiler system. When evaluating heating and cooling systems, individual air conditioning units (window type) were included in the base case.

The three other "heating only" alternatives investigated were:

1. A centralized, hot water district heating system with gas-fired boilers,
2. A centralized district heating system with cogeneration (a gas engine generator with heat recovery, generating heat and electricity), and

3. A centralized district heating system with a gas engine-driven heat pump utilizing ocean water as a low temperature heat source.

The other "heating and cooling" alternative investigated was:

1. A centralized district heating system with a gas engine-driven heat pump to provide both heat and cooling.

The heating and cooling demand levels used for evaluating each of the heating and cooling systems was calculated using the Medium Level of insulation. However, the level of insulation proved to be irrelevant to the ordering of the different heating systems.

The centralized gas-fired boiler system is very similar in life cycle cost over 25 years to the individual heating system, if gas prices do not escalate faster than inflation. On the other hand, if natural gas prices escalate at the published rate of 5 percent, a life cycle savings of approximately \$2 million over 25 years could be realized.

The economics of cogeneration are dependent on the price of natural gas as well and on the value for internal use and external sale of the generated electricity. The analysis assumed an internal consumption value of \$0.09/kWh and a sale value (to Boston Edison Company) of \$0.06/kWh. If part of the electricity produced is used internally by the tenants at Columbia Point, the cogeneration system would be the most favorable heating system. The life cycle savings under this scenario would be on the order of \$4 million to \$1 million for zero percent and five percent gas escalation rates, respectively. On the other hand, if all of the electricity is sold to Boston Edison, cogeneration is somewhat less attractive than individual gas-fired boilers.

In the heat pump alternative, the gas-fired generator used to drive the heat pump compressor will generate excess electricity. If all of this electricity is used internally at Columbia Point, the heat pump system offers a life cycle savings ranging from a "break-even" point with a natural gas price escalation of zero percent to \$3 million at a five percent price rise over 25 years. This savings occurs in spite of the large initial costs of installing the pipe necessary to couple the heat pump to the ocean. If, on the other

hand, all of the excess electricity is sold to Boston Edison, the life cycle savings over 25 years is very similar to the individual gas-fired boiler case.

Utilizing the heat pump for heating in the winter and cooling in the summer (the heat recovery from the gas engine generator supplies the domestic hot water demand during the summer), leaves little or no electricity for sale, but allows a reduction in capital costs. The life cycle savings over 25 years ranges from \$0.5 million with no fuel escalation rate to \$3.5 million if a five percent rate is assumed.

In summary, the results of the analysis indicate that a centralized solution to the energy problem at Columbia Point may be economically equal or superior to individual gas-fired units, under the "heating only" and "heating and cooling" scenarios. The feasibility of any centralized alternative assumed that the installation would be undertaken at the time of construction. Further, due to the relatively large operating costs for a small centralized district heating system as proposed for Columbia Point, economies of scale are available, particularly if additional customers near the housing development such as the Bayside Expo Center or new U-Mass development could be recruited for participation in the construction and use of any selected system.

After completion of the Metcalf & Eddy report, a presentation of the results was given. In addition, several meetings to discuss the final selection of the energy supply system for Harbor Point were also held with the MHFA, the MEOER, the BRA and the BHA. Crowley Engineers, mechanical engineer for the project, has been studying mechanical system designs and have made final recommendations for the mechanical system based upon proven engineering practice and equipment and review of the Metcalf and Eddy report.

Throughout the site, to encourage energy conservation, there will be individual metering of electricity. The heating and cooling strategy will vary depending on building type as discussed below.

It has been decided that the townhouse units will have self-contained wall mounted gas fired heating and cooling units. Domestic hot water will be provided by electric hot water heaters. Wall insulation will be R-19, ceiling insulation R-30, windows will be A2 aluminum double glazed thermalbreak.

The lowrise rehab, midrise rehabs, new midrise and mall buildings will be served by 4 to 12 boilers each. Chillers and boilers will be located to provide heat and air conditioning to 1 to 4 buildings each. For these building types the energy source will have gas fired hydronicmodular boilers with two pipe vertical, fan-coil distribution systems that require a seasonal change from heat to air conditioning. Domestic hot water will be generated off the modular boilers. Wall insulation is R-13 to R-19; ceiling insulation varies but is R-30 in pitched roofbuildings. Windows A2 will be aluminum double glazed thermal break.

In summary, a partially centralized distribution system is planned for Harbor Point. Several buildings will be served by one boiler plant. For example, the plant in building 5-1 will serve building 5-2, 12-1, and 14-1 as well. This allows some efficiency and if a district heating plant were built in the future, part of the distribution system would already be in place. Figure VI-16 shows the location of all of the mechanical rooms and the buildings each serves.

HARBOR POINT MECHANICAL ROOM LOCATIONS AND BUILDING SERVED

HARBOR POINT MECHANICAL ROOM LOCATIONS AND BUILDING SERVED

SITE SHELL PLAN

1" = 50' 4-11-88
GOODY, CLANCY AND ASSOCIATES

FIGURE VI-16

MOUNT VERNON STREET

MECHANICAL ROOM LOCATIONS

BUILDINGS SERVED

MECHANICAL ROOM LOCATIONS

BUILDINGS SERVED

MECHANICAL ROOM LOCATIONS

BUILDINGS SERVED

5-1

5-1, 12-1, 14-1, 5-2

15-1

15-1, 15-2, 1-1

20-1

20-1, 20-2

7-1

7-1, 10-1, 11-1, 7-2

16-1

16-1, 17-1

21-1

21-1, 21-2, 9-2

18-1

18-1

22-1

22-1, 22-2, 9-1

19-1

19-1

K. URBAN QUALITY

1. Urban Quality and Character

As summarized earlier, the site of the existing housing project has had a negative impact on the image and aesthetic quality of the Columbia Point peninsula, due largely to its physical deterioration and lack of maintenance.

The current street layout of the housing project creates a maze-like barrier against the waterfront while Mount Vernon Street terminates just beyond the housing site, adding to the isolation that symbolizes the current negative social image.

In order to transform the existing environment into an active and aesthetically pleasing community, a site plan has been developed that addresses both physical and environmental characteristics. The design for the proposed redevelopment will:

- o Create a strong new community image relative to this spectacular New England coastal site and dispel many of the current negative connotations of a cramped, monotonous "project."
- o Develop a cohesive community, integrating residents of different income, family size, race, and age.
- o Use and rehabilitate the existing buildings on the site as much as possible. Complete clearing of the site is financially and conceptually unacceptable at Columbia Point.

Using exterior building materials that are consistent with those of traditional New England towns -- from wood clapboard and shingles for the smaller buildings to stucco and brick for the larger ones -- the proposed site plan establishes a consistent and orderly diagonal street layout providing views of Dorchester Bay . The character of the street system will vary from the relatively large scale and urban tone of the main street along the Mall, to the family-oriented neighborhood streets on which the townhouses will be located. The streets should help to create a lively and safe living environment for residents, and a feeling of belonging to a distinct community with its own neighborhoods.

The most urban of the residential buildings, along with community and commercial facilities, line the main

mall. Four- to five-story elevator buildings of "flats" along with the renovated seven-story building for the elderly, create a strong continuous edge which transcends into the seven-story mall buildings along the water with views of the harbor. At grade, private entries to first floor "flats" in low-rise buildings and the mixture of recreational, residential, community, and commercial uses create varied activity along the town green.

2. Visual and Urban Design Impacts

Despite the Peninsula's close proximity and accessibility to Boston, residential use other than the public housing project has not been attracted to the area. Even before poor living conditions and management led to a decline in the number of tenants, the project population has never been able to sustain any neighborhood convenience stores. In addition, the adjacent Bayside Shopping Center failed many years ago and has since been converted to the Bayside Exposition Center, thus leaving current residents without local shopping opportunities.

In addition to St. Christopher's Church, Boston College High School, and a public school, other major neighbors include The University of Massachusetts, (which built its Harbor Campus on the southern side of the peninsula in 1970), the Kennedy Library (built near the University and the Pumping Station in 1980), and the new Massachusetts State Archives. Possible future uses for the large open space to the east of the Harbor Point site include new housing, a conference center, or an expansion of the UMass campus. A new retail center planned at the Bayside Exposition Center will, in addition to convenience shopping within the project, serve the needs of the residents.

Harbor Point's new infrastructure will help unify the Columbia Point peninsula in several ways. The Waterfront Park, which includes a bike path and public picnic areas along the entire water's edge, will be part of a planned peninsula-wide MDC linear park. Secondly, the current dead-end Mt. Vernon Street is proposed to be connected to a road leading to the University of Massachusetts, thus forming a continuous pedestrian and vehicular circuit around the peninsula, improving access to the University's resources for local residents. Finally, the provision of waterfront views throughout the new community will, in a manner, unify the project by providing a similar theme.

In addition to the positive social impact of a lively new mixed-income community, Harbor Point will dramatically change the visual impact of this site, viewed both from land and water. A new, varied community with a range of building types and heights and ample green space will replace the existing closely-packed, identical buildings. From downtown Boston the taller mall buildings and the new waterfront park will combine with the Kennedy Library to present a positive, visual symbol of the new Columbia Point. Within the site itself, the imagery of the community will draw from a variety of New England sources; from the stately boulevard (such as Boston's Commonwealth Avenue), to the lively Main Street of a small town, to the narrow tree-lined street of a successful urban neighborhood.

3. Wind and Shadow Impacts

3.1. Wind Impacts

A qualitative assessment of the wind effects of the proposed Harbor Point project was conducted for the FEIR. The study found that given the exposed nature of the site, there is no realistic way to avoid some adverse wind impacts around the larger elements of the project. However, identification of the likely impacts at this stage of the design allows for adjustments which can minimize the effects of the high winds on residents of Harbor Point and passers-by.

The major impacts occur on the windward corners of the midrise elements. At the same time, areas downwind of these buildings (i.e., immediately behind the buildings) are provided with considerable shelter from the wind. Therefore, providing at least two alternate pedestrian routes into each building will serve to allow safe access to and egress from the buildings by residents at all times. However, passers-by will also need protection in some areas. General wind impacts in the mall area will be experienced during SW and NE winds due to the general alignment of the prevailing winds with the street grid; localized impacts near intersections of cross streets will occur during NW and SE winds.

The waterfront area will be windy frequently during the winter (NW winds) but will be reasonably well sheltered from prevailing SW-winds in the summer. Late afternoon and evening onshore seabreezes will of course occur during calm days and will be noticeable in areas along the waterfront.

Several mitigation concepts have already been implemented or discussed:

- a. Dense tree plantings in most pedestrian areas.
- b. Minor relocation of certain swimming pools and play areas.
- c. Berming of the area along town green to provide shelter for the rest of the mall during SW winds.
- d. Depressing the tennis courts area to provide further reduction of exposure to SW winds.
- e. Use of canopies or steps in the mid-rise buildings, and relocation of sidewalks.

In general, the impact of the new six and seven story mall buildings will be a reduction in maximum ground-level wind speeds. Since the site's exposure to the Harbor might result in highwinds around windward faces and corners, landscaping features will be retained, and used for protection of building entrances. However, the replacement of the stepped midrises with the lower mall buildings will result in a more favorable wind climate. A full description of the "worst case" wind analysis, based upon the original estimate of 1400 units, including 4 stepped midrises, appears in Appendix R. This analysis is, by definition, more conservative in that the midrises have a greater negative impact than the new design.

3.2. Shadow Impacts

The new site plan incorporates good solar access for all buildings, as well as the open recreation space. No shadows from the proposed or rehabilitated buildings will fall on any adjacent site. The present serious overshadowing of open space and lower buildings caused by the existing seven-story buildings will be eliminated by locating the taller buildings in a way that enables their shadows to fall on large open space areas, not on other dwelling units or key recreation areas. The replacement of the fifteen-story stepped mid-rise buildings along the waterfront with the new mall buildings will further reduce the impact on the the bicycle and jogging path along the waterfront park. In addition, placement of the townhouses between the mall buildings and the waterfront park will assure uninterrupted solar access for the public park throughout the year. Figures VI-17, -18, and -19 show the results graphically.



SHADOW STUDY - JUNE 21

NOON

2:00 PM

 AZIMUTH 0°
ALTITUDE 72°

 AZIMUTH 63°
ALTITUDE 58°

(ABOVE BASED ON 42° LATITUDE)

FIGURE VI-17



SHADOW STUDY - OCTOBER 21

NOON

2:00 PM

AZIMUTH 0°
 ALTITUDE 37°
 AZIMUTH 35°
 ALTITUDE 30°

(ABOVE BASED ON 42° LATITUDE)

FIGURE VI-18



SHADOW STUDY - DECEMBER 21

NOON

2:00 PM

■ AZIMUTH 0°
ALTITUDE 26°

■ AZIMUTH 30°
ALTITUDE 19°

(ABOVE BASED ON 42° LATITUDE)

FIGURE VI-19

VI-105

Further landscape and building design will incorporate passive solar design techniques. For example, special attention will be paid to the orientation of deciduous plantings at outdoor passive recreation and play areas, to provide sun in winter and shade in summer. Location of windows and provisions of overhangs will be among the building design decisions which will ensure successful passive solar building design. A copy of the shadow study performed for this project is included as Appendix R.

L. SOCIO-ECONOMIC IMPACTS

1. Tenant/Development Partnership Structure

The major component to the Harbor Point development plan is the partnership that has been established between the private developers and Columbia Point Community Task Force (CPCTF) to own and operate Harbor Point. Based on their successful experience with similar partnerships at King's Lynne and the Meadows/Quaker Court in Lynn, Massachusetts, Corcoran, Mullins, Jennison, (CMJ) knows that a partnership between a developer and a residents organization can be successful, and that it does make a positive difference in the development of a vital residential community. In this manner the goal of making the low income residents an important part of a mixed community can be met.

1.1 Summary of Partnership Structure

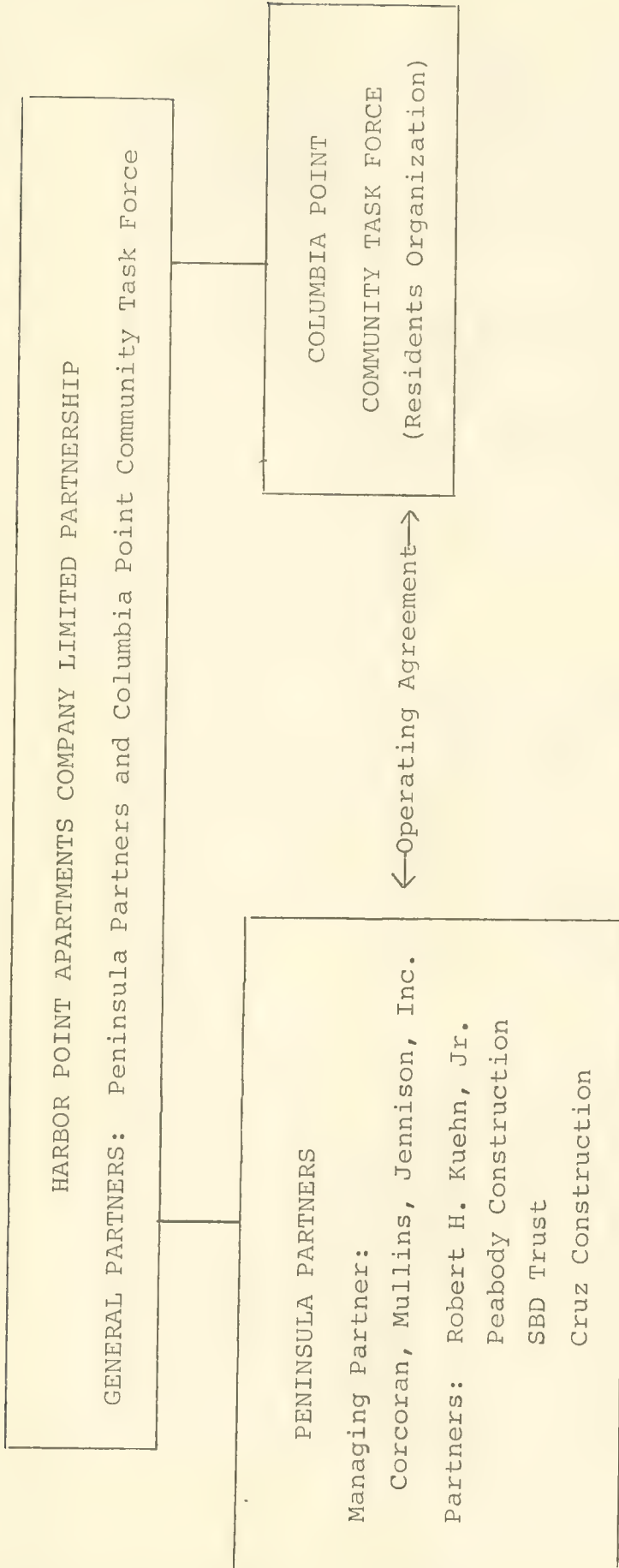
The Partnership structure consists of Peninsula Partners, represented by the managing general partner Corcoran, Mullins, Jennison, Inc, and the CPCTF as general partners in the new ownership entity for Harbor Point (Figure VI-20). Both General Partners will share equally in decisions affecting the development from the initial planning phases throughout the life of the partnership. A Governing Board has been formed which consists of four members--two resident representatives and two CMJ representatives. All decisions brought to the Governing Board level requires unanimous approval of the members of the Board. This structure, while time-consuming, has been very successful in CMJ's other resident partnerships. There will be an agreed process for arbitration if a deadlock is reached on any issue. However, based on CMJ's experience to date, arbitration is unlikely to be required.

The following sections contain a description of the kinds of decisions and responsibilities that the General Partners have faced, and will confront during the development, construction, and management phases of the project. These serve as the basis for negotiation of an Operating Agreement establishing the General Partnership. A final partnership agreement is currently being negotiated.

1.1.a. Development Phase

While CMJ, Inc.'s original proposal for the redevelopment of Columbia Point presented a conceptual plan of the project, many decisions

HARBOR POINT OWNERSHIP STRUCTURE



left for the development phase. These included design issues concerning the site plan, unit layouts, exterior treatment of buildings, and an amenity package, all of which were settled by the Partnership. Detailed management issues affecting the interim and permanent periods such as rules and regulations, lease provisions, etc., have also been agreed upon by the Governing Board.

Regular weekly meetings of the Governing Board, attended by representatives of each of the General Partners, members of the design team and other outside professionals as required, are held to discuss development issues. CPCTF participation in all other meetings concerning this development, such as meetings with BHA, BRA, and other local officials, as well as all funding agencies, is encouraged. The time and location of these meetings are scheduled in a manner that makes CPCTF's participation possible.

1.1.b. Construction Phase

Construction will begin at the Columbia Point site immediately after the loan closing. The general contractor, Vernon Construction Co., will have full responsibility for monitoring construction progress and day-to-day construction problems, in order to meet completion dates and occupancy projections. Regular construction job meetings will be held on-site with the construction staff and the General Partners in order to monitor the progress of construction, and coordinate it with the complex program of relocation, demolition and interim management.

1.1.c. Management Phase

CMJ Management Company assumed management of the Columbia Point Housing Project for the Boston Housing Authority in October, 1984. Several general principles apply to both the interim and ongoing management, which the Governing Board will oversee. As the management agent hired by the Partnership, CMJ Management Company is responsible for day-to-day management of the properties. Regular meetings between the General Partners and management company representatives are held to discuss any policy or other issues affecting the management of the property. These policy issues include such things as rules for use of recreation facilities, tenant selection standards, review of

affecting the management of the property. These policy issues include such things as rules for use of recreation facilities, tenant selection standards, review of the annual operating budget, rent increases, revisions to the lease and evictions.

In addition, the General Partners will also have joint responsibility for the resident service program determining the nature and extent of programs to be operated each year as well as monitoring the effectiveness of the program. Section L.4. of the EIR describes the proposed social service program in detail.

1.2. Financing Partnership Activities

In order to create a meaningful partnership, both partners must have the financial resources to operate as a partner. The development team has agreed that 10% of net syndication proceeds, and 16.67% of cash flow will be committed to the Task Force in order to fund its ongoing operations.

In addition, CMJ will supplement these funds by providing furnished office space, office supplies, and telephone for the Task Force throughout the life of the development. The company will also provide financial investment advice to the Task Force in order to assist them in effectively managing the funds available to them.

2. Community Characteristics

The uses for the site contemplated under the Harbor Point redevelopment proposal do not differ significantly from the present use of the site, in that 1282 units of mixed-income housing will be distributed throughout the site. As stated elsewhere, the mix will include 400 low- and 882 moderate- and market- income tenants. The 400 low-income figure was developed because there are approximately 400 families presently living at Columbia Point.

The construction of separate public housing units within the project site was evaluated as an alternative to this distribution of low-income apartments, but was considered inappropriate for the following reasons:

- o The main goal of Harbor Point is the creation of a stable, mixed-income, integrated community. The construction of exclusively low-income units in separate buildings scattered throughout the site

would undermine this goal. It would be inevitable that these "public housing" buildings would be identified and stigmatized, as has the current project.

- o The second goal of co-ownership with residents would also be disrupted since the low-income residents would not be part owners of their own buildings. Instead, the owner would be the Boston Housing Authority (BHA), creating the problem of two categories of residents - public non-owners and private owners.
- o If there were two owners not only would the control of operating budgets and funds be disjointed, but the standards for management and staffing could be different. In a development with one owner, that owner alone controls the budgets and the services provided by the management company. If two owners were responsible for one manager, it would create a complicated process for management and could lead to very little action when responding to the needs of all the residents of the development. The management company's hands, in effect, would be tied if it had to answer to two different owners, with different operating budgets. The standards of the development would also be affected since there could be a real problem in reaching a consensus on what standards and issues should be upheld and addressed.

Physically, the new site will be oriented to take advantage of the natural amenities of the waterfront property. Increased recreational and community facilities will result in a less isolated and more socially active community atmosphere, including open space with tot lots behind each cluster of buildings. Commercial space for convenience-type shopping will also be added for the benefit of the tenants.

3. Management

Harbor Point will continue to be managed privately by CMJ Management Company. The firm, which currently manages over 4,000 units of rental housing for Corcoran, Mullins, Jennison, Inc., has extensive experience in managing mixed income properties such as King's Lynne in Lynn, MA and The Villages at Montpelier in Laurel, Maryland.

The Interim Management Period (the time between the assumption of management responsibilities for the current residents and buildings and the time when

renovations are complete) is a critical period. Some activities are unique to this period: relocation of residents, activity management during heavy construction, and the transition from BHA to private management. Additionally, the Interim Management Period is being utilized to socially upgrade the image of the Columbia Point housing area. Increased efforts are being undertaken at groundskeeping, public area cleaning and rule enforcement. Site residents were hired early in the interim period and CPCTF is involved in the design of the management plan.

4. Resident Service Plan

An extensive resident service plan is being developed to serve the low, moderate and market rate sectors of the new tenant population.

It is important to recognize that the success of the new development is primarily dependent on the attitude and outlook of the current residents. Two social service planners are currently working closely with the existing population in identifying areas of social service needs. The planners are also evaluating the present social service agencies on site and their space requirements. A matrix of programs covering the areas of education, health, employment, arts, recreation and family life are being formulated and will be integrated into the overall development plan.

The P.M. Hassett Day Care Center currently operating on the site is one program that has been studied. A quality facility, the Center presently serves 68 children, the vast majority of whom are from Columbia Point. As discussed in Part V of this EIR, the center is being expanded to serve 100 children.

5. Relocation

In formulating a relocation program, the needs of Columbia Point's residents have been taken into consideration and coordinated with the management team, construction schedule and marketing strategies. While all residents are encouraged to remain on site during the construction process, the option will exist to relocate off site. Relocation of residents will be carried out in full compliance with the regulations of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1976 (42 USC 1601 et seq.) and with Chapter 79A of the Massachusetts General Laws, as amended and the rules and regulations of the Bureau of Relocation issued thereunder. The needs of the

existing tenants will be given top priority at all times while the proposed five year plan is being implemented.

The following premises have been considered in the relocation plan:

- a. Every resident will have the option to remain at Columbia Point both during and after construction.
- b. Every effort will be made to relocate the residents in as minimum a number of moves as possible.
- c. Residents will be made as comfortable as possible during the transition period.
- d. Housing Opportunities Unlimited (HOU), the resident services consulting firm, will ensure that the residents are advised of their rights and that they receive all the benefits due them.
- e. The relocation process will be concluded quickly and expeditiously.

5.1. Surveying Residents

In order to determine the demographics of the Columbia Point population, a comprehensive survey was developed to analyze the composition of the residents. This survey worked in other ways as well. It was the first introduction of the relocation staff to the population at large and the population's first introduction to the relocation plan. In this manner it afforded H.O.U. staff the opportunity to personally review the proposed relocation plan on an individual basis with the heads of households.

The survey results were analyzed in terms of family size and future bedroom needs. This information, first drawn in the Summer of 1984 and later updated in the Spring of 1985, served to influence the architects and designers in their design of buildings and unit sizes so that the existing Columbia Point population would be housed according to their needs.

The results of the survey indicated that current family sizes will continue to grow, with any population loss a factor of natural attrition, eviction or families moving because of construction. Special need must be given to handicapped and elderly. The elderly will have their own block of

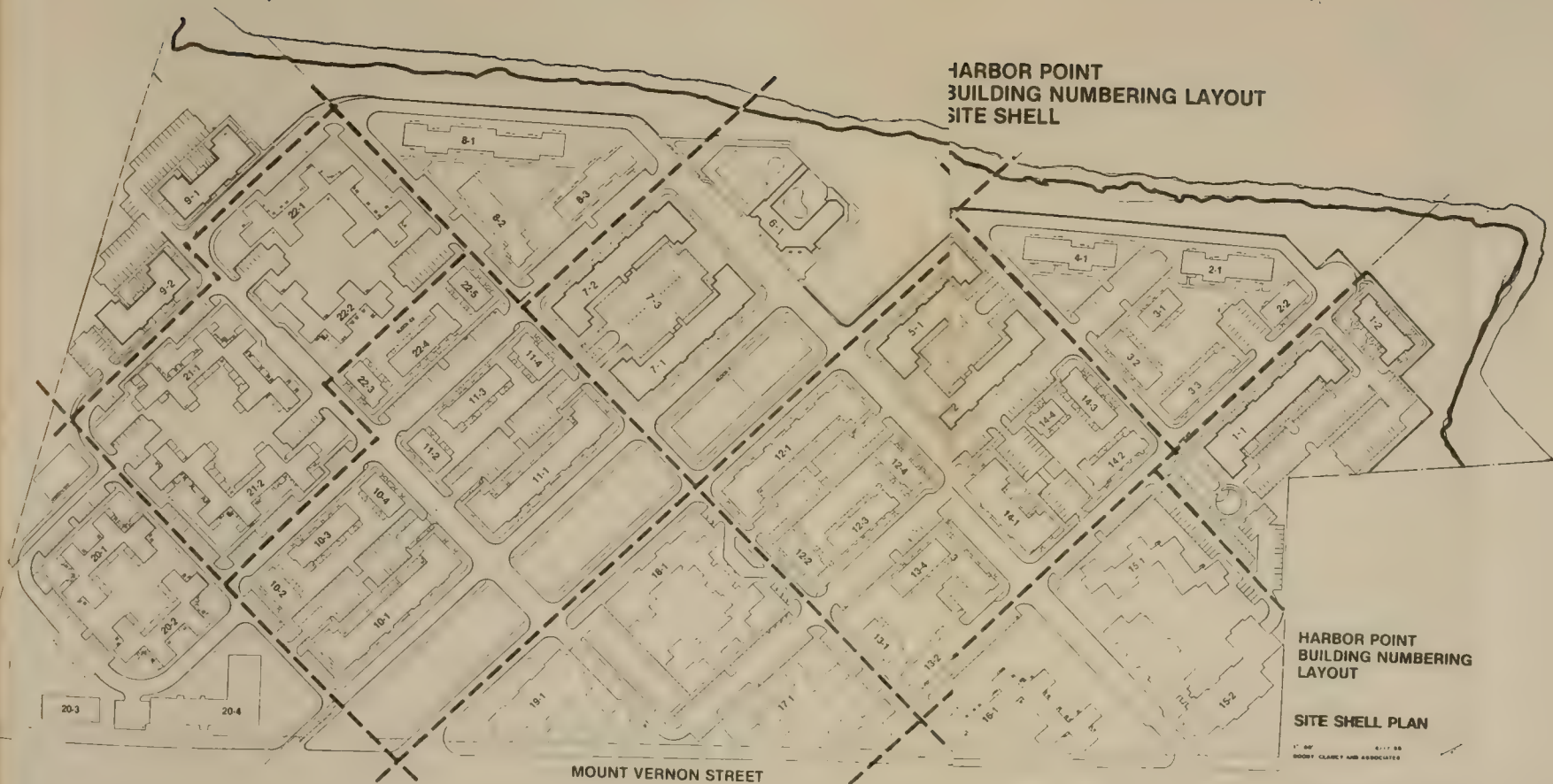
buildings in the new development with appropriate services.

One aspect of the survey was a study analyzing family needs. One result of this study was the identification of "subset families" existing within some larger families. These "families within families" occur when a son or daughter continue to live with their parents while having a family of their own. Specifically, in order to qualify as a subset family, the first child had to have been born prior to October 1, 1984, to a parent remaining on his/her own parent's lease. Subset families are entitled to their own units and will enjoy the same rights as other heads of households in the new community.

5.2. Temporary Relocation

In order to provide effective site management during construction, some households have been relocated. HOU determined that it was necessary to relocate the 36 families and three on-site agencies located in Buildings #18, 20, and 26 in order to meet the first part of construction schedule. Building #18 is scheduled to be converted into the elderly building and the others demolished. In November, 1984, 30-day notices were given to the residents, informing them of the relocation process, the benefits due them, and a tentative date to be relocated. In a few cases when apartments were ready early, residents also signed a waiver stating that they would be willing to move within 30 days. HOU workers met personally with each of the 36 heads of households, either in his/her own home or in the office, in order to assure that the residents were prepared for their move. Moving was conducted either by a tenants moving company, a company organized by some residents, or by individual tenants themselves. Only two of the three agencies remain on-site.

Altogether, then, the 36 family relocations and the two agency relocations have emptied out three additional buildings and brings the total number of vacant buildings at 12. Table 20 and Figure VI-22 show where the families/agencies have relocated to.



HARBOR POINT
BUILDING NUMBERING
LAYOUT

SITE SHELL PLAN

1" = 50'
BOBBY CLARK & ASSOCIATES

FIGURE VI-2 I

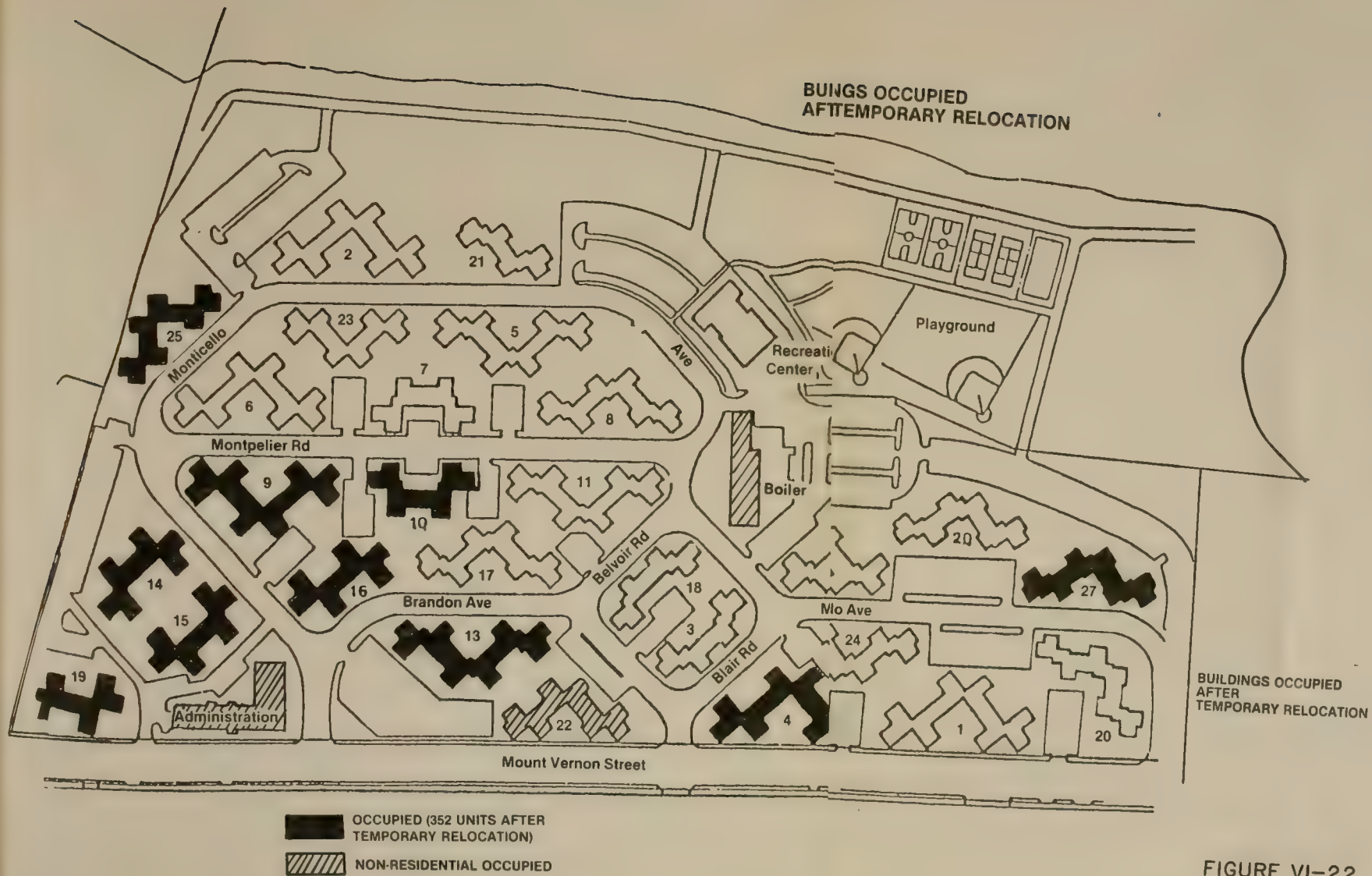


FIGURE VI-22

TABLE 20

New Location of Residents

5 elderly	-	Moved into Bldg. 27
15 families	-	Moved into Bldg. 13
11 families	-	Moved into Bldg. 25
2 families	-	Moved into Bldg. 10
1 family	-	Moved into Bldg. 4
1 family	-	Moved into Bldg. 16
1 family	-	Moved into Bldg. 14
2 agencies	-	Moved into Bldg. 22

The family relocations took place over a period of three and one half months, from November 20, 1984 until March 4, 1985. Building #18 was the first building emptied, then Building #20. The two agencies were relocated from Bldg. #26 during the middle week of March.

5.3 Rehousing Guarantee

Once the survey results were compiled and the temporary relocations got underway, it was necessary to deliver Rerousing Guarantees to each head of household. This guarantee assures Columbia Point families of receiving a unit in the new development. To assure this, HOU carefully scrutinized the BHA Tenant Status. Review occurred in coordination with CMJ Management.

5.4 Permanent Relocation

The permanent relocation of Columbia Point residents into their new units will begin approximately 14 to 16 months after construction begins. This grouping of new townhouses, rehabbed low-rise, and mall buildings, should create a small version of the new community, allowing for mixed racial and economic development at the beginning of relocation.

Table 21 contains a list of current bedroom needs based on projected construction scheduling of Columbia Point Residents. The buildings are listed in the order that they will be vacated. A permanent relocation plan can be found in Appendix T.

5.5 Unit Mix

The first step in determining a realistic Unit Mix was to calculate the existing bedroom needs of families currently residing at Columbia Point

TABLE 21

Buildings are in the order in which they will be emptied out)

Building #	1BR(Tower)	2BR(Tower)	2BR(Ground Access)	3BR(GA)	4BR(GA)	5BR(GA)	6BR(GA)	Elderly	TOTAL
1. BLDG. #4	1	5	10	17	8	3			44
2. BLDG. #27								36	36
3. BLDG. #9		1	4	15	17	2	1		40
4. BLDG. #14	1	4	5	8	8	2			28
5. BLDG. #15	1	3	4	11	7	1	1		28
6. BLDG. #10			5	10	3	1			19
7. BLDG. #19	1	2	9	12	4	1		2	31
8. BLDG. #16	1	5	12	9	4	2	1	2	36
9. BLDG. #13	1	4	22	35	5	1	1	2	71
10. BLDG. #25	1	5	22	8					36
TOTAL BR NEEDS	7	29	93	125	56	13	4	42	369 Units Needed

including subset families eligible for their own apartments. In order to calculate bedroom needs, the results of the Resident Survey discussed in 5.1 were utilized, integrating Columbia Point residents throughout all the blocks of the site. A review of the TSR statements by HOU staff, in conjunction with CMJ Management, served as a further means of analyzing needs.

Table 22 shows the proposed Unit Mix in terms of the percentage of current units occupied by Columbia Point families per block. Although the percentage of Columbia Point families in low-rise blocks still remains higher than in the mid-rise units since the latest change in design, the percentages have dropped dramatically in the family blocks with an increase in those blocks that are predominantly non-ground access. These two changes have provided for more even distribution of Columbia Point residents throughout the site. All of the Unit Mix strategy is based on the requirement by both the Peninsula Partners and in particular, the Columbia Point Community Task Force that families with children under 18 not be placed in above-ground units in elevator buildings.

The Mall blocks along the waterfront park have the lowest percentage of current residents since fewer of the Columbia Point households currently have children over 18. Blocks that have townhouses side by side with mall buildings also have somewhat lower percentages of Columbia Point Units because the mall buildings contain many apartments on the upper floors. It is in the blocks made up of only townhouses or rehabbed buildings where the percentage of Columbia Point Units is slightly higher. Given the stated premises, the Unit Mix Chart is as accurate as is possible.

6. Social Impacts

6.1. Schools

The new development will impact both the Dever and McCormack Schools due to an increase in student population from the present 500 children to 700, an increase that the System can accommodate. Presently, some Columbia Point children do attend these schools, while others are bussed to different schools in the city depending on the geographical code of their apartment building, as designated by the Boston

TABLE 22

UNIT MIX

Block #	% of Units occupied by Columbia Point
1	13%
2/3	62%
4	66%
5	5%
7	5%
8	64%
9	13%
10	33%
11	36%
12	35%
13	61%
14	36%
15	3%
16	51%
17	51%
18	46%
19	20%
20	50%
21	50%
22	56%

School Department. According to the Implementation Division of the Boston School Department, the possibility exists that the development's relocation plan could affect a child's school location. The developers intend to work with the School Department in preventing such student transfers from occurring.

6.2 Church

St. Christopher's Church, located across the street from the housing, will be somewhat affected to the extent of parishioner attendance. A few Columbia Point families presently attend the services. It is expected that the new development will result in an increase in the size of the parish.

6.3 Security

Since management of Columbia Point has been assumed by CMJ Management, a private security service has been retained. In addition, the General Partners negotiated with the City of Boston for additional security coverage by the Boston Police Department. The Team Police Program currently operating at Columbia Point will continue. Specific agreements on vehicular patrols will be negotiated with the Police in the future.

In addition, the Chief Resident Superintendent will receive security observation and reporting training. These duties will be a full-time responsibility in addition to placing a high priority on the repair and installation of locks on all public places. Regular inspection of the doors is a part of management responsibilities along with first floor security screens.

Access to the site will be carefully monitored through a resident parking stickers program. Residents who have guests staying for longer than a 7-day period will be required to notify management. Additionally, the proposed design of the new site will increase resident security. The two vehicular entries to the site lead to a system of well-lit streets with increased pedestrian activity. Another security-sensitive design feature is to decrease the size and number of apartments

opening off common entries in existing buildings so that residents will be more likely to know their neighborhoods and informally monitor common areas.

7. Economic Impacts

7.1. Construction Employment

Under the terms of the Memorandum of Understanding between the Boston Housing Authority, the Boston Redevelopment Authority and the Columbia Point Task Force, Inc., the developer is committed to provide at least 50 construction related jobs and 50% of the management positions to current Columbia Point residents.

The construction of Harbor Point will result in significant construction employment opportunities, as total construction cost is estimated at \$120 million. In addition to construction firms in the area benefiting from this development, existing tenants will be given the opportunity to work through a Construction Employment Training Program (CETP) being implemented by ADB Consultants, Inc. This program is designed to integrate BHA tenants into the building trade unions' existing training and employment programs. An employment goal of a minimum 25 apprentices in various trades has been established. Additional goals for employment of laborers, skilled craftsmen, truck drivers, etc., who are existing public housing residents, have also been set.

Throughout the construction period, Columbia Point residents will be given special consideration for employment and training on the construction sites as well as for management, maintenance, seasonal and/or part-time employment opportunities. A resident has been hired as the program coordinator for the implementation of the CETP.

In addition, each consultant, engineer and contractor hired for the development project has been required to employ a minimum of one Columbia Point resident. As a result of this C.E.T.P. program, sixteen Columbia Point residents have already been hired.

7.2. Permanent Employment

It is estimated that Harbor Point will result in the creation of approximately 50 full-time jobs when completed. These jobs will be found in a number of fields including: social services, management, security, marketing, clerical, and tenant services.

M. Construction Impacts

1. Demolition

Seventeen of the existing structures will be demolished before actual construction begins and after the existing residents are relocated. Figure VI-23 identifies those buildings scheduled for demolition.

The crane clamshell bucket is the method of demolition that will be used. The other option considered was the "implosion" method which uses explosives to bring a building down upon itself.

The demolition specifications require rodent control which will aid in preventing the spread of rodents throughout the Peninsula, as their habitats are disrupted. In addition to site specific measures, the project's neighbors will be notified of the construction schedule in order to increase their own control measures.

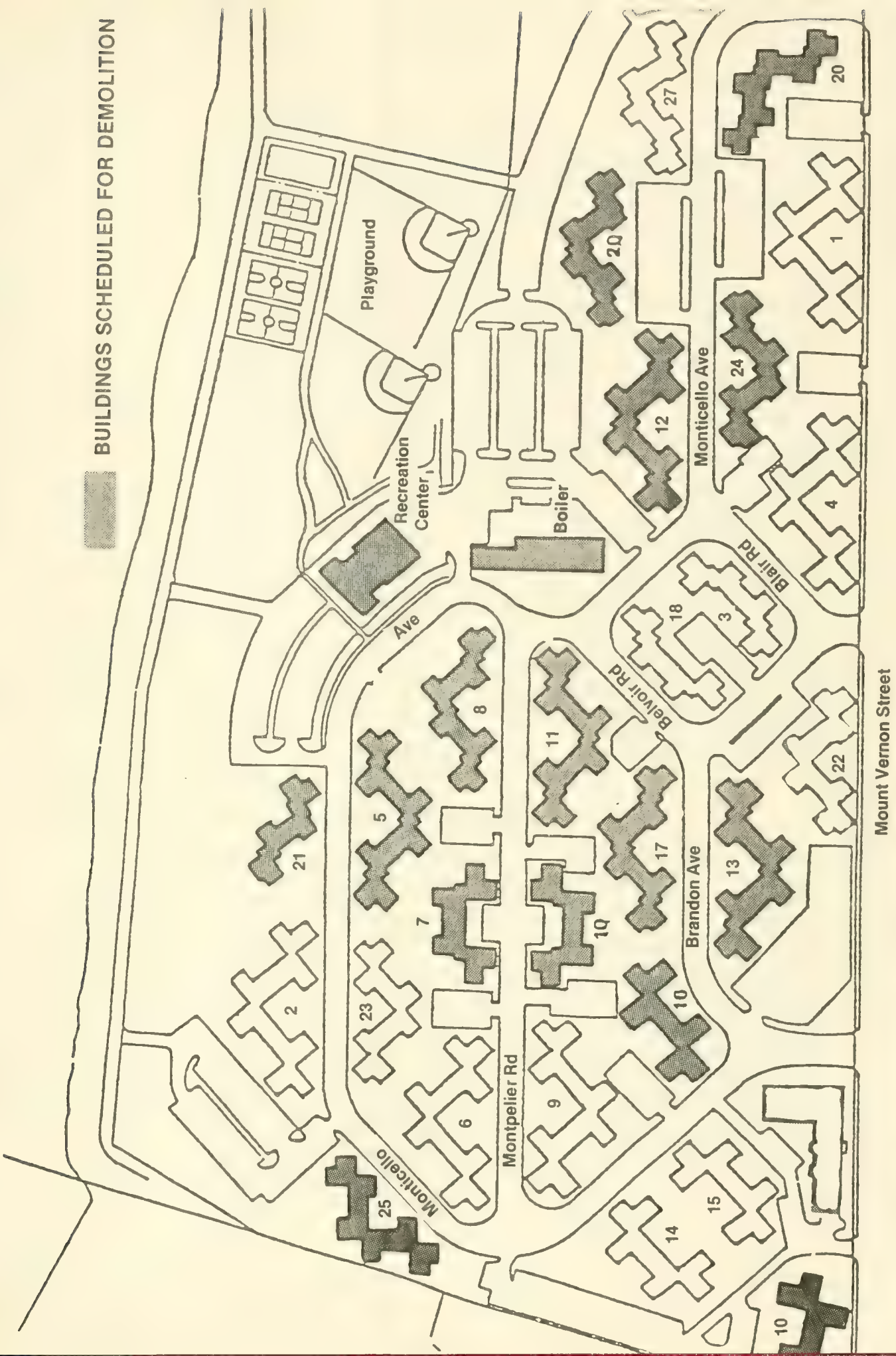
Fugitive dust from construction activities at Columbia Point will be controlled by watering the exposed ground area. Chemical stabilization methods such as the use of calcium chloride are another means of fugitive dust control. However, they can be costly, contaminate the treated soil and have adverse impacts on plant and animal life.

Some of the demolition debris may contain asbestos. To minimize any potential adverse impacts, the National Emission Standards for Asbestos (40 CFR, Part 61) and Massachusetts DEQE procedures will be followed. Asbestos will be removed prior to demolition, after consultation with the DEQE.

Rubble generated by demolition will be loaded into trucks, covered and then taken to a predetermined and certified dump site or, if appropriate, be used for paving roads for the heavy truck traffic. In all cases DEQE regulations 310 CMR 7.09 and 7.10 will be followed. Further discussion of solid waste disposal including demolition waste is included in IV D.4 of this report.

FIGURE VI-23

BUILDINGS SCHEDULED FOR DEMOLITION



2. Construction Methodology

Although the construction schedule has changed slightly from the DEIR, it will still proceed as quickly as possible while keeping the needs of the existing residents in mind.

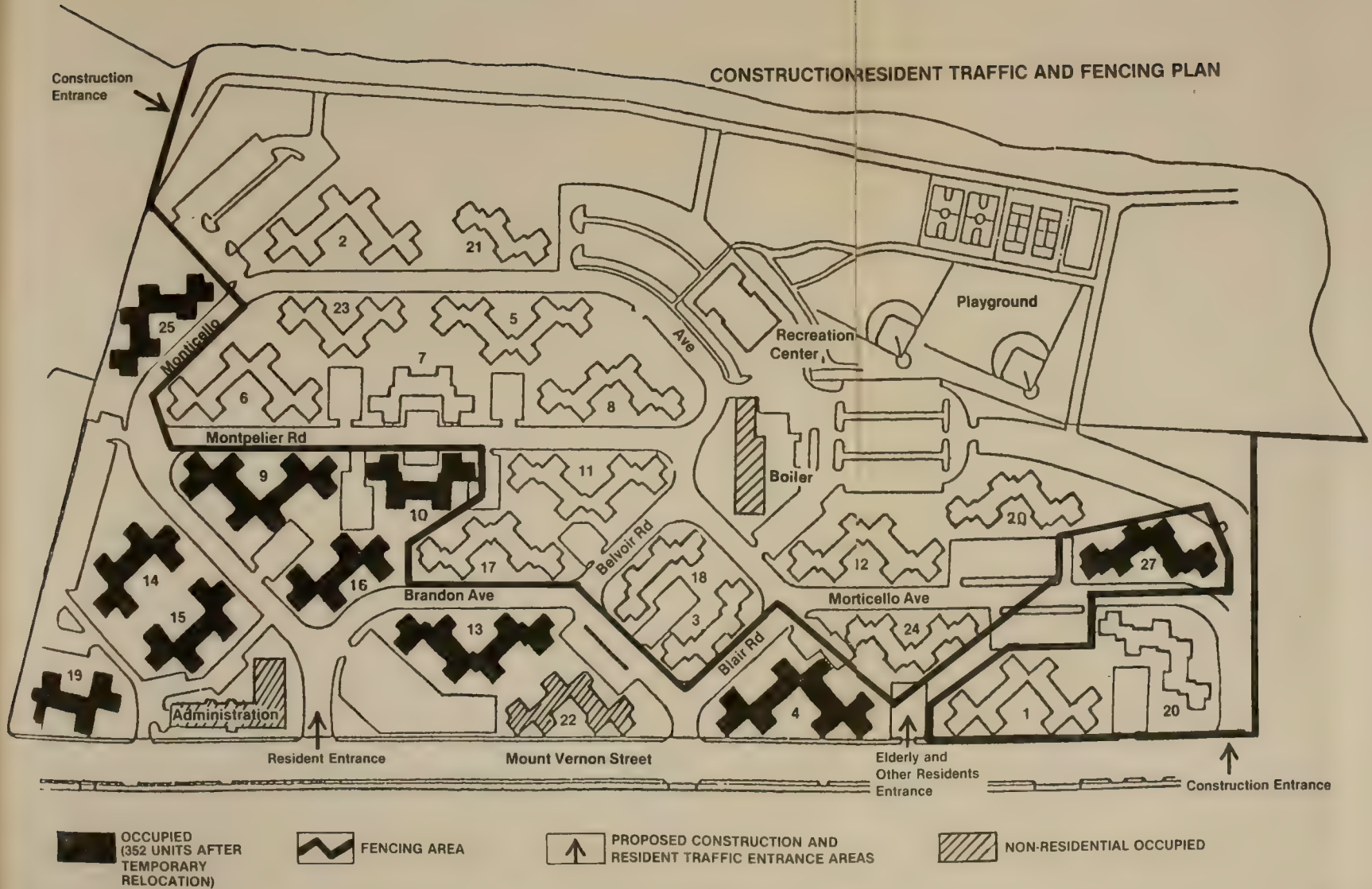
As stated elsewhere in Section L.5.2 of Part VI, Housing Opportunities Unlimited (HOU) has devised a temporary relocation plan for current residents of Columbia Point which is intended to consolidate existing tenants and agencies into certain buildings so that construction may begin. In order to protect residents and facilitate construction, fencing and clearly defined restricted roadways will be put into place (Figure VI-24). The four year construction program will begin on the eastern portion of the site, where the majority of vacant buildings exist. The demolition of these buildings will occur as the first step of construction.

As sections of the new Harbor Point are completed, residents will be moved into their new units. One of the first buildings to be completed will be the elderly complex, which will house elderly residents currently residing in Building #27. The remainder of the construction schedule will proceed according to the residents permanent relocation schedule discussed elsewhere. (See Figure VI-25 for the proposed Construction Schedule).

3. Hazardous Waste Monitoring

As discussed in Section V-D.3, analytical tests of groundwater samples revealed that no toxic substances were encountered at levels required to meet the characteristic of EP Toxicity. Trace amounts of three of the eight pesticides and herbicides, and five of the eight heavy metals included in the EP Toxicity test of EPA were observed. Additionally, because of the variable nature and variety of old fill which may exist within the site, concern has been expressed that the possibility exists for hazardous wastes at one or more locations. In recognition of this, a hazardous waste engineer will be available whenever site excavation occurs in order to examine the underlying materials, and test all suspected materials.

CONSTRUCTION RESIDENT TRAFFIC AND FENCING PLAN



Should suspected materials be encountered, all work in the area will cease until sufficient information is obtained to determine whether or not remedial action is required. A full 21E-type investigation will be made if a determination is made that hazardous wastes do exist, and appropriate action, consistent with the relevant statutes and regulations, will be taken.

HARBOR POINT CONSTRUCTION SCHEDULE MAP

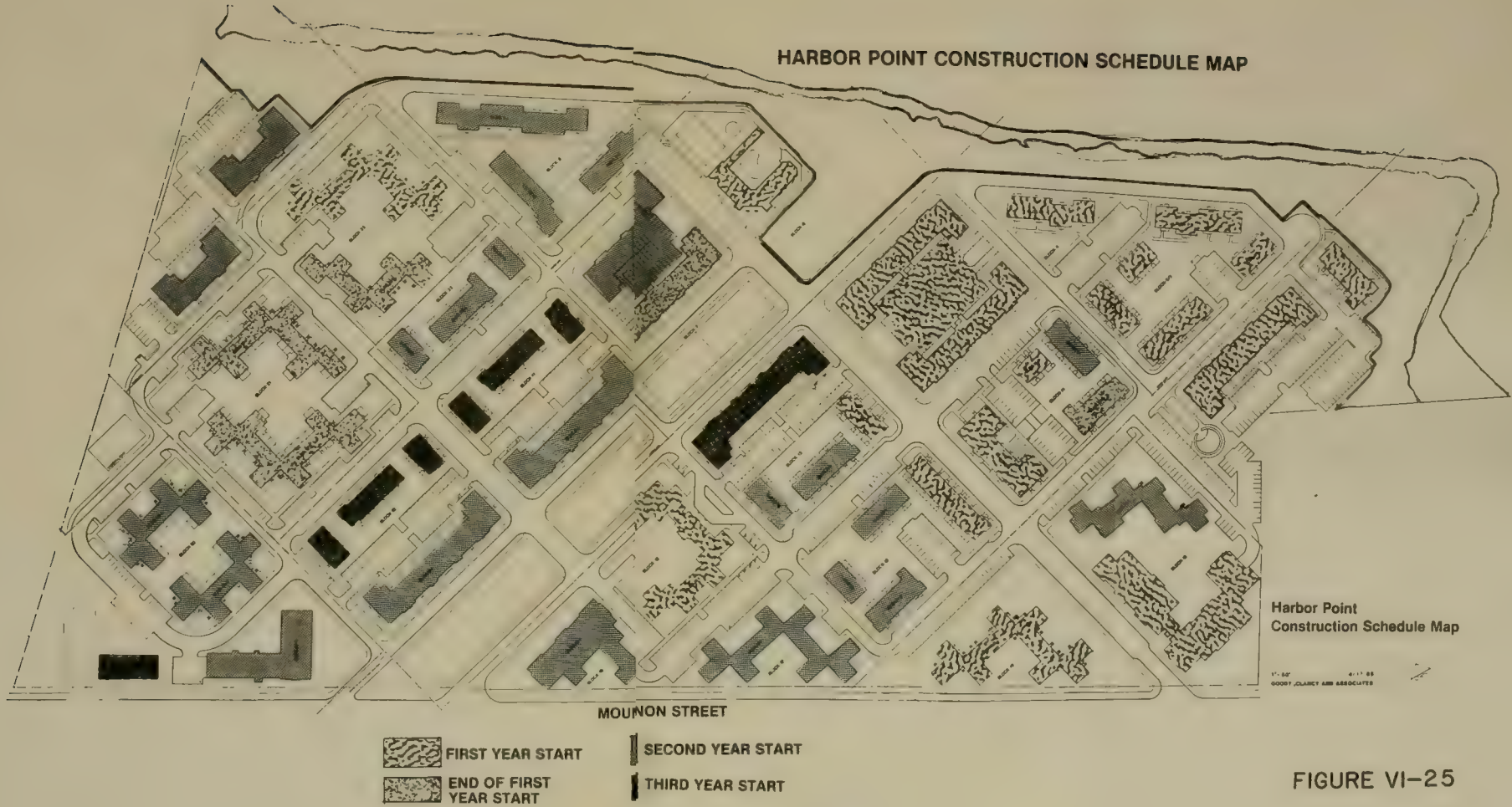


FIGURE VI-25

N. Secondary Impacts

It is anticipated that the development of the residential community will have several secondary impacts beyond its own boundaries on development or activities on the peninsula or elsewhere.

The most significant of these impacts will be the stimulus for further development on the peninsula, principally of the Calf Pasture Pumping Station and the remainder of the Boston Water and Sewer Commission land and adjacent U-Mass property. Despite many years of discussions and plans for the development of this land, it has become apparent that these adjacent parcels will not be developed until the housing site is at least well under construction, if not complete. The Pumping Station has been conceived of as the focus of the Columbia Point Peninsula, merging the institutional, residential, and commercial/industrial sectors. The reconversion of the Station might include community space, retail, and/or restaurant uses. U-Mass activities related to a possible hotel/conference center on U-Mass land is also a possibility.

Another secondary impact of the residential community involves a proposed extension of Mt. Vernon Street beyond the U-Mass loop road connector, past Calf Pasture to the end of the peninsula. This improvement would probably occur when the residential community is under construction or completed. At that time, there could be sufficient interest in developing the BWSC and U-Mass properties, and thus in extending Mt. Vernon Street. This public improvement would provide the vehicular and pedestrian circulation necessary to finally connect the two isolated parts of the peninsula together.

An additional and important secondary impact of the residential development relates to the likelihood of improvements at the peninsula schools, Dever Elementary and McCormack Middle Schools, and perhaps at other schools attended by children of the residents. It is likely that a new and vigorous neighborhood with an active resident group, will demand the best in public education for its children, becoming involved at the local and city-wide levels to improve Boston's public school system. An increased involvement by U-Mass in the two peninsula schools may also occur, perhaps becoming laboratory schools to the University.

After almost two years of operation, the Bayside Expo Center has had a major positive impact on Columbia Point, drawing numerous spectators and visitors. The development of the residential community will continue to bring people to the Peninsula. Thus, another secondary impact of this new neighborhood will involve further familiarity with activities on Columbia Point such as Bayside, JFK Library, the State Archives, U-Mass Boston, Bank of Boston Computer Center and other peninsula facilities.

Another secondary impact of this development could have city- or nation-wide implications which can be considered positive or negative depending upon one's viewpoint. If this new private mixed-income community is successful, using as its base a formerly dilapidated public housing project, it is conceivable that it will be used as a model for the renovation of other large public housing projects here and elsewhere. This could involve a decrease in public housing costs. However, the privatization of former public housing is feared by those who believe all existing public housing units should be retained in the interest of low-income residents by a public agency.

Perhaps the most important secondary impact of this rehabilitated residential community could be an affirmation that residents of greatly different income levels and of different races can live peacefully, happily and productively together. There has been widespread questioning of the feasibility of the mixed-income, racially-integrated concept and the success here could have a significant positive impact on the racial climate in Boston.

PART VII

ENVIRONMENTAL IMPACT SUMMARY

VII. ENVIRONMENTAL IMPACT SUMMARY

A. SUMMARY OF ENVIRONMENTAL IMPACTS AND BENEFITS

1. Short-Term Effects

1.1 Land Use and Development

For the proposed project, short-term land use impacts would involve the demolition of seventeen of the existing 30 buildings. Park land owned by the City of Boston would be changed in use to accommodate the proposed redevelopment.

1.2 Open Space and Recreation Areas

Although access to the waterfront area could be effected by construction, the shoreline area realizes little public use. The existing recreation facilities located on the City owned land would be demolished for the project. However, their use has been minimal in recent years due to their remote location and the project's declining population.

1.3 Traffic, Circulation and Transportation

Internal circulation will be maintained at all times for the current residents. The resident entrance off Mt. Vernon Street will be maintained separately from the construction entrance during all three phases of development. Truck traffic will be noticeably increased on Mt. Vernon Street.

1.4 Public and Private Utilities and Services

Utilities and existing services will be maintained at all times for the current residents. Most of the on-site utility lines will be maintained although portions will be abandoned and new infrastructure would be constructed to serve the development.

1.5 Soils, Geology and Topography

Because of the unsuitable bearing soils (i.e. fill, trash and organic deposits), Franki piles may be necessary to support most, if not all, of the structures. A temporary lowering of the water table may also occur, requiring recharging in order to prevent damage to surrounding buildings.

1.6 Water Quality

Some temporary impact may occur due to soil erosion as a result of the project. The repair of the rip-rap may also cause the introduction of sediments into Dorchester Bay. The possibility of the water quality being affected may be greatly reduced by standard ad hoc erosion control practices (i.e. hay bales, seeding, etc.).

1.7 Flooding Potential

Portions of two of the proposed buildings lie within the 500-year flood area. All buildings will be set above the 100-year flood elevation.

1.8 Vegetation and Wildlife

Due to the absence of significant vegetation and wildlife population in the study area, short-term negative effects would be minimal. Existing vegetation would be removed to accommodate redevelopment. The local vector population would be disturbed and would necessitate extermination measures.

1.9 Air Quality

Some deterioration of air quality would occur during the construction period of the project. The most significant impact would be substantial increases in particulate levels as a result of building demolitions, excavations, and site preparation activities, but these emissions could be minimized through the application of dust-control measures. Construction equipment and trucks also would release small amounts of air pollutants. All of these effects would be of short duration and would be restricted to periods of active construction.

1.10 Noise Levels

Increased noise levels inevitably would result from operation of the construction machinery, equipment, and trucks, but these are not expected to be excessively disturbing except for pile-driving operations. Most construction would take place away from noise-sensitive residential uses. Construction noise can be reduced by the installation of noise abatement equipment and by compliance with applicable City and State noise

control regulations.

1.11 Energy

Considerable energy would be required for building demolitions, site preparation, excavations and construction activities.

1.12 Urban Quality and Design/Visual Characteristics

Clearance of the existing buildings and the resulting vacant parcels might present a blighted, barren landscape for short periods of time. However, this may even be an improvement to the sight of the existing vacant buildings.

1.13 Relocation

Families and agencies located in Section I of the new site plan will be temporarily relocated in Section III. The 33 elderly families located in Section I will remain there until the new building for the elderly is complete.

1.14 Economic Activity

Some businesses in adjacent areas may be minimally effected by construction activities. The proposed project will provide numerous job opportunities, including those for current residents.

1.15 Secondary Impacts

Temporary negative impacts could occur in the areas that are immediately adjacent to the project sites. These impacts would be due to construction related activities including increased traffic and levels of construction generated noise and particulate emissions.

2. Long-Term Effects

2.1 Land Use and Development

Much of the land within the project site will maintain its intended use, that is, of residential housing. Four of the parcels owned by the City of Boston and designated for park and recreational use will be transferred to the Boston Housing Authority for residential and recreational use. The housing site is to be leased to the private developer for a period of 99 years.

2.2 Open Space and Recreation Areas/Public Access

In the long-term, project area open space and recreational area will be enhanced by the redevelopment. Recreational facilities for residents of Harbor Point will include tennis and basketball courts, swimming pools and neighborhood play areas.

A 5.5 acre multi-use public park, owned and operated by the MDC, will be located along the entire Harbor Point shoreline. It will be connected to other MDC park land along Dorchester Bay in order to provide a continuous waterfront park. The park will have a minimum width of 50 feet, providing a biking/walking/jogging path and places for sitting, informal games, and viewing areas. In addition, the rip-rap will be reconstructed, fishing allowed and the small beach upgraded.

2.3 Traffic Circulation and Transportation

Traffic to be generated by all known proposed developments was assessed for the years 1990 and 2000. A total of 16,436 one-way trips will be generated by the year 2000 by retail/commercial, office, residential and hotel facilities on the peninsula. Levels of service will decrease at four of the seven intersections analyzed during peak hour conditions. Traffic and roadway improvements suggested include minor geometrical changes at Day Boulevard and the Day Boulevard Connector to Mt. Vernon Street, connection of the U-Mass Roadway at Mt. Vernon Street and the reconstruction of Mt. Vernon Street.

Parking will be provided on-site at a ratio of 1.0 off-street spaces per dwelling unit. Another 200 on-site-on-street spaces will be provided for visitors. Pedestrian circulation in the area will be enhanced by the reconstruction of Mt. Vernon Street.

2.4 Public and Private Utilities and Services

Full development of the project would increase demands on public and private utility systems (water, sewerage, gas, communications, etc.) and services (fire, police, educational, health, etc.) but these impacts would not be particularly

significant.

Average daily water consumption would be approximately 329,300 gallons per day and could be accommodated adequately by the municipal system, although additional pressures would be placed on the adequacy of the MDC supply. Wastewater flows at full development are estimated at 278,520 gallons per day. Storm drainage runoff quantities should approximate the same amount as existing conditions. Both the municipal and the MDC sewer and storm drainage systems would be adequate to accommodate any additional project area demands.

Private utilities, such as electricity, gas, and telephone, also would be able to satisfy the demands of the proposed redevelopment. No significant long-term adverse impacts on the City's emergency, educational, or cultural facilities and services would be expected to occur. Emergency services actually should be enhanced because of improved roadway access, new security measures, increased levels of lighting, and building compliance with modern safety and fire codes. An estimated 700 school-aged children would attend Boston's school system at full development.

Approximately 69 cu. yds. of solid waste per day would be generated by the project and would be removed from the site for disposal by private services.

2.5 Soils, Geology and Topography

Physiographical impacts would occur primarily in the short-term construction period; long-term affects would involve the permanent maintenance of alterations which would have occurred during construction of the project (e.g., minor topographic changes, maintenance of the rip-rap along the shoreline, etc.)

2.6 Water Quality

The water quality of Dorchester Bay is expected to improve progressively with the upgrading of the Deer and Nut Islands sewage treatment plants and the construction of a CSO (Combined Sewer Overflow) facility near Kosciuszko Circle.

2.7 Flooding Potential

All buildings will be established at elevations above the 100-year flood area along with all access roads.

2.8 Vegetation and Wildlife

The provision of additional open space and landscaping in the project area where little presently exists should enhance the biological environment and provide new habitats for bird species and small wildlife. Urban vegetation in the area would be significantly increased.

2.9 Air Quality

No violations of either the 1-hour or 8-hour CO standard are predicted for the future years. Over the long term, air quality in the project area actually would improve over existing conditions because of stricter Federal and State emission controls on automobile and compliance with the Boston Transportation Control Plan, even though vehicle-miles travelled would increase. By the year 1987, total emission burdens would be considerably less than existing conditions.

2.10 Noise Levels

Future day-night sound levels would increase somewhat although remaining well below the HUD guidelines of acceptability. No new flight paths or frequencies are being presently contemplated by Massport that would have adverse impact to the population of Harbor Point.

2.11 Energy

The results of the analysis of energy indicate that a centralized heating and cooling system may be economically equal to or superior than individual gas-fired units.

2.12 Urban Quality and Design/Visual Characteristics

Significant long-term aesthetic and visual improvements within the project area will result from the proposed redevelopment project. The proposed site plan will establish a consistent and orderly street layout which will open views of the waterfront. A new, varied community with a range

of building types and heights will replace the existing closely-packed buildings. The project should help to create a new community image relative to this New England coastal site and dispel the current negative connotations.

2.13 Wind and Shadows

The new site plan should help to diminish the problems of wind channeling created by the configuration of the existing site plan. The massing and configuration of the buildings will help to avoid uncomfortable local wind conditions and take advantage of cooling summer breezes.

The new site plan incorporates good solar access for all buildings. No shadows from the proposed or rehabilitated buildings will fall on any adjacent site. The taller seven story mall buildings are located on the site plan so that their shadows fall on large open spaces and not on other dwelling units or key recreation areas.

2.14 Community Character and Cohesion

Redevelopment of the project site would establish a new community identity and character. Most significantly, the characteristics of the resident population would change dramatically from a low-income, predominantly black population to a mixed-income, racially-integrated community. The total project area population would increase by approximately three times the existing population.

2.15 Housing Demand and Supply

The proposed redevelopment would provide 882 units of market and moderate-income housing in addition to the 400 low-income units which would be available to the current tenants. These units would help fulfill the growing need of housing in Boston, which exists at all income levels.

2.16 Economic Activity

The long-term economic impact generally would be positive and would include increased employment and City and State tax revenues. Residents would share up-front and on-going profits of development through the Columbia Point Community Task Force's role as a general partner. Property taxes to the City would increase from both the site and

adjacent properties by removing the existing blight. Additionally, employment opportunities would be provided for the current Columbia Point residents through development, construction and maintenance activities.

2.17 Secondary Impacts

Redevelopment of the Columbia Point housing site is expected to stimulate further development on the peninsula. The Calf Pasture Pumping Station has been conceived as the focal point of Columbia Point, merging the institutional end of the peninsula with the residential community and other Mt. Vernon Street activities.

Increased use of the numerous public facilities will also result from the elimination of the negative social image of the housing project. Further familiarity with activities on Columbia Point such as the Bayside Exposition Center, JFK Library, and the State Archives should result as a secondary impact from the redevelopment.

B. RELATIONSHIP BETWEEN SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The National Environmental Policy Act of 1969 (NEPA), describes each generation as a trustee of the environment for succeeding generations and, as such, having the responsibility to weigh all factors which would tend to narrow the options for future beneficial uses of the environment or pose long-range risks to public health and welfare. In the context of this project, "short-term" is defined as the time span of the construction period of the Columbia Point redevelopment project while the "long-term" refers to that period of time in which all significant consequences of the proposed project would be felt. The extent of trade-offs between short-term environmental gains at the expense of long-term productivity, and vice-versa, comprise the short-term/long-term relationships described below.

The project area presently is an underutilized and partially abandoned housing project on the Columbia Point peninsula. The principal aims of the proposed project are to revitalize this residential area and to rehabilitate the waterfront, resulting in the long-term enhancement of the environment.

1. Short-Term Uses

The short-term uses are generally adverse and are related to the site preparation and construction activities. The primary negative impacts affect both the human and the natural environments and include building demolition, the relocation of households, increased levels of noise and air pollution, a potential for temporary water quality degradation from the proposed redevelopment and rehabilitation of the shoreline rip-rap, disruptions caused by the development of new public and private improvements, and irreversible resource commitments. The costs of these impacts, which represent a loss of environmental quality, would be shared by all users of the local environment. However, when each section of the project is completed, conditions would return to a new steady state, with the effects virtually eliminated and little permanent evidence of the temporary disruption. Other aspects of the project, which entail outlays for construction employment and equipment and material commitments, would realize significant short-term beneficial returns in the form of jobs, personal income and business excise taxes, and new economic activity (the multiplier effect).

2. Long-Term Productivity

Permanent impacts of the project are expected to be primarily positive, although the redevelopment may also result in some long-term negative impacts. The long-term productivity of the project is the revitalization of this underutilized section of the City. The long-term benefits of the project will flow directly from these development aspects.

The result should be an improved environmental setting, attractive to the proposed economic, social, and commercial activity. Primary positive impacts include:

- o the elimination of blighting conditions and the physical and aesthetic upgrading of the project area;
- o the expansion of rental housing in Boston by the addition of 882 market and moderate-income units while providing 400 low-income units for current Columbia Point residents;
- o the aesthetic enhancement of the shoreline and the development of an important link in the public park/walkway of Dorchester Bay;
- o the increase of social services, recreational facilities, security and convenience stores, and;
- o the provision of employment opportunities and job training for current Columbia Point residents.

The major long-term negative impacts of the proposed project, which must be weighed against its long-term benefits, include increased traffic generation and increased use of the local street network, with potential circulation conflicts or congestion in certain areas, slightly increased noise and air pollution levels, additional burdens on utility systems and greater water consumption and sewage generation and increased depletion of energy resources. However, the costs of these adverse effects would be primarily local and could be minimized through careful design and the adoption of appropriate mitigation measures, as previously described.

C. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

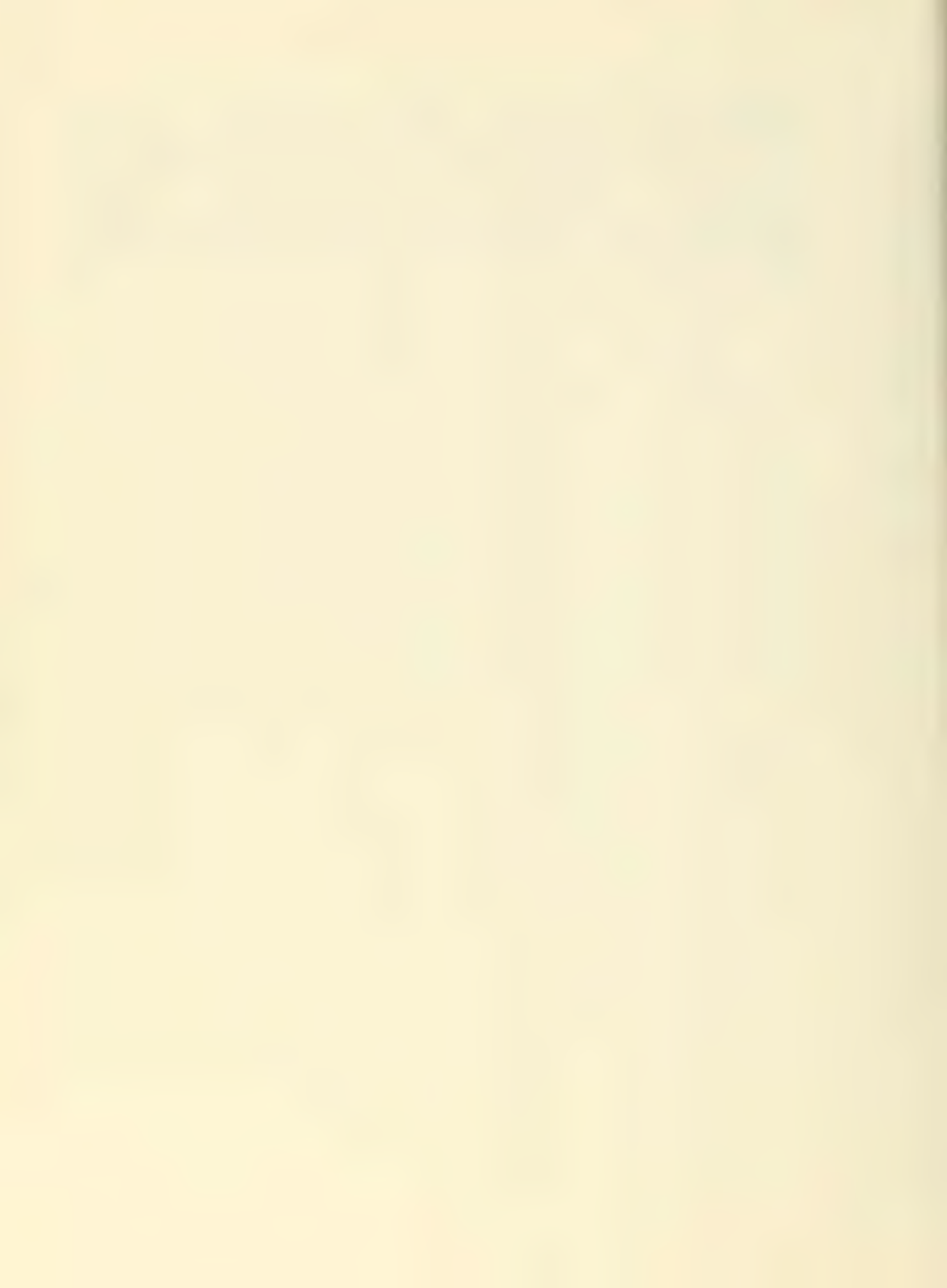
The proposed project would result in some irreversible and irretrievable commitments of resources. Development of the project as planned would involve the irretrievable commitment of some 50 acres of land and water on the Columbia Point peninsula and generally would foreclose any option for alternative uses during the foreseeable life of the project. Physically, the major alterations from pre-project conditions would be the irreversible demolition of the existing buildings in the project area. Because the project area presently supports little wildlife or vegetation, there likely would be no permanent decrease in the biological productivity of the area (to the contrary, productivity should increase due to the extensive landscaping and parkland proposals of the redevelopment plans).

The construction of the new buildings, street, utilities, and other public improvements would require the irreversible commitment of materials, labor, and energy resources. Tangible raw materials ranging from soil for fill and landscaping to structural steel, concrete, brick, wood, and other building materials would be required, as would new furnishings, fixtures, and equipment. Although no major commitments of these resources would be required, and none are considered to be scarce or would involve unusual quantities, most are, nonetheless, depletable. However, some of the existing building material and furnishings potentially are salvageable and could be reused.

Upon completion of the proposed project, there would be the commitment of utility and community services to support the project and the necessary long-term public financial commitments to provide these support services to the redevelopment. These would include such local services as police and fire protection, sewage collection and treatment, solid waste pick-up and disposal, and health and educational services, street maintenance and repairs, and the provision of public transportation services. Public and private buildings would require staff, upkeep, repairs, utilities, and protection. All of these would require the irretrievable use of labor, materials, money, and energy resources. While none of these resources could be considered unique, some material and basic energy resources, such as fuel oil, natural gas, and electricity, are, in the long-run, irreplaceable since they are non-renewable. In addition, the increased demand for water could tax currently over-burdened supplies, especially in drought years.

Increased traffic generation is expected to result in

continued circulation and congestion problems at certain intersections. However, these adversities are not necessarily irreversible if mitigation measures identified in the Transportation section are implemented. There must be a renewed commitment to public transportation facilities to meet the increased commuter needs and to reduce dependence on private cars. Noise and air quality impacts also would continue but should not be significant nor irreversible.



HARBOR POINT

(REDEVELOPMENT OF THE
COLUMBIA POINT HOUSING PROJECT)

FINAL ENVIRONMENTAL IMPACT REPORT EOEA #5076

BOSTON, MASSACHUSETTS

PART VIII

COMMENTS ON THE DRAFT EIR



The Commonwealth of Massachusetts

Executive Office of Environmental Affairs

100 Cambridge Street

Boston, Massachusetts 02202

MICHAEL S. DUKAKIS
GOVERNOR

JAMES S. HOYTE
SECRETARY

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS

ON

DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT NAME: Harbor Pt.

PROJECT LOCATION: Boston

EOEA NUMBER: 5076

PROJECT PROPONENT: Columbia Pt. Redevelopment Team

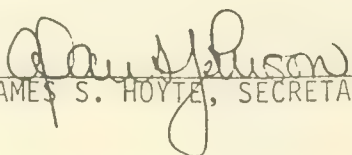
DATE NOTICED IN MONITOR: December 24, 1985

The Secretary of Environmental Affairs herein issues a statement that the Draft Environmental Impact Report submitted on the above referenced project does not adequately and properly comply with Massachusetts General Laws, Chapter 30, Section 62-62H inclusive, and the regulations implementing MEPA.

I am strongly supportive of the project and anticipate that the final EIR will be a much-improved document.

In particular, it is the function of the Final EIR to provide an adequate basis for consideration of the project pursuant to c. 91.

February 15, 1985
DATE


JAMES S. HOYTE, SECRETARY



The Commonwealth of Massachusetts

Executive Office of Environmental Affairs

100 Cambridge Street

Boston, Massachusetts 02202

MICHAEL S. DUKAKIS -
GOVERNOR

JAMES S. HOYTE
SECRETARY

M E M O R A N D U M

TO: Marty Jones, Corcoran, Mullins & Jennison
Stephen Coyle, Boston Redevelopment Authority

FROM: James S. Hoyte, Secretary *James S. Hoyte*

DATE: February 28, 1985

RE: Comments on the Draft EIR for Harbor Point, EOE #5076

The project is clearly one which will inure to the benefit of the environment. However, the Draft EIR was seriously deficient on a number of counts. The EIR will require substantial modification before review as a Final EIR. The deficiencies are in the general areas of format, state licensing requirements and mitigation.

FORMAT - The Draft EIR was very spotty in clarity and completeness of presentation. Some discussions - e.g., presentation of alternatives - were thoughtful and complete. Other discussions - e.g., parking needs - were good, as far as they went, but didn't thoroughly explore or explain the issues or options. In other areas, thoughtful discussion was totally absent.

Overall, the document lacked cohesion and any form of editorial consistency. It bore all the earmarks of having been written by a diverse group of people. I understand that one reason for this was the potential that it would become an EIS for H.U.D., with BRA in the role of a proponent and thus sharing editorial responsibility for the document. Since HUD has determined that no EIS will be required, MEPA law imposes on the private proponent, Corcoran, Mullins & Jennison, the primary responsibility for the product, and permits BRA to resume its more customary agency role of planning and reviewing. Acceptance by C.M.J. of responsibility for the content and quality of the Final EIR should, in my experience, result in a better document.

Many difficult policy issues are raised by the attempt to develop a workable redevelopment scheme for Columbia Point. They should be squarely faced and openly discussed in the Final EIR.

As one example, the height of waterfront structures is clearly an important design issue for this project, the City and the Commonwealth generally. The Draft EIR should have presented that issue and discussed the proponent's and BRA's resolution of it. Comments on the Draft EIR and responses thereto would have lead to a clearer understanding of the issue by all concerned. Derivative questions, such as the effect of shadows and wind turbulence on the viability of open space, would have then received some discussion before they get taken up in the Commonwealth's c. 91 licensing process.

1 What instead occurred was a rather coy sidestepping of the issue. The project described in the ENF, and for which I issued the Scope, proposed structures up to twelve stories high. By the time the Draft EIR was filed, these heights had increase to 16 stories, without comment or explanation. Even the description in the Draft EIR was evasive; it refers to the four structures ENF as "high-rise" (p. II-4, III-18 and "towers" (III-18), but also as "stepped mid-rise" (III-1, IV-23). Apparently, height was of concern to the BRA. By the time the Draft EIR review was complete, the tower heights had been reduced to 11, 15, 15 and 11 stories.

The issue of height, however, received no discussion in the EIR. In fact, to show consistency with planning, the Draft EIR quoted the following sentence from the BRA's Harborpark framework:

"The general goals for this area are retaining and enhancing the open space, parks, and beaches along the Harbor, promoting residential uses, and protecting the residential areas from industrial intrusion and impacts."

It inexplicably deleted and failed to discuss the very next sentence of that document:

"No structures other than for public recreational use should be built near the water, and heights in this planning area should be limited to three stories."

Harborpark - A framework for
Planning and Development (October, 1984), p.57

The EIR should convey to public and private reviewers a good feeling for the project, and illuminate the policy issues raised by the project. Visuals aids should be developed with those goals in mind.

2 Graphics in the DEIR, however, were small, difficult to follow, and often illegible. Only persons intimately familiar with the project would be able to track and comprehend the small scale plans at III-9 through III-28. The renditions at VI-90 and VI-91 were clearer (though not current). In general, plans should be at least doubled in size to be useful. The large fold-out plan was generally lacking in identification of structures. Where the large plan should have been useful, e.g. in scaling the width of the public access easement, it appeared unreliable. Elevations and perspectives from typical vantage points would add much to the presentation and should appear in the Final EIR.

II STATE LICENSING

3 The EIR should be a major contributor to the c. 91 licensing procedure. Although the Draft EIR presents a proposed project, it contains no assessment of the issues which are raised by c. 91. DEQE-Waterways, CZM and MDC comments speak extensively to the issues presented. The Final EIR must respond fully to those issues. Some additional points follow.

- 2 1. The graphics must clearly depict existing, as well as proposed recreational land. They should also delineate primitive MHW and MLW lines.
- 4 2. According to the proponent, an important issue in project planning has been the distinction between public and private recreational land. This is only faintly reflected in the Draft EIR. Page VI-55 cites the desirability of opening up public access to "alleviate the isolation factor that has plagued the Columbia Point housing project." However, and perhaps paradoxically, other portions (e.g., VI-9) suggest a desire to limit to the waterfront path the public access. Indeed, BRA staff express concern that a sizable park on the eastern point would create and pose a security threat. The Final EIR must disclose and discuss the intentions of the project in this regard.
- 5 3. A possibly related, but separate issue is posed by the roads along much of the waterfront, separating proposed townhouses from the public access areas. Is this an appropriate use of what seems to be the most precious real estate on the site? Is the purpose of this design element one of security, definition of a boundary between public and private space, or convenience for townhouse residences? In this instance, the tension between public and private waterfront land uses appears to have been resolved largely on the side of the private uses.
- 6 4. The EIR's scant discussion of tidelands licensing (p. VI-54) implies that so long as the site is used "for residential and recreational purposes," the project is licensable. The two functions - residential and recreational - are not interchangeable. CZM policies 21 and 24 call for an increase in recreational uses of waterfront; this project would apparently diminish waterfront parkland.
- 1 5. MDC and CZM comments address the issue of building setbacks, also discussed above. Curiously, the EIR praises the waterfront siting of the towers as not casting shadows on residences - instead, shadows are to fall on public open space. Elsewhere, the EIR suggest the waterfront is too exposed (and, it would appear shadowed) to provide satisfactory open space. Again, parkland seems to come up on the losing end of design decisions.



7

6. The suggestion that lost parkland may be replaced in the indefinite future, on land of the Boston School Department or Boston College High School (p. VI-10) is entirely unsatisfactory, particularly when those landowners have not joined in the proposal (see BC High comment).
7. The waterfront strip proposed was described as 30 feet wide in the EIR. It scaled out as narrow as 20 feet on the plan. Apparently, it has since been expanded to 50 feet. The outmoded plan at VI-90, 91 shows a more generous treatment of the waterfront, a "necklace" (VII-4), which has currently been much reduced.

4

Apparently, the reduction in open space shown by the current plan was caused by a surveying error. I understand that the original bid documents incorrectly identified MLW as MHW, and hence development proposals assumed a significantly larger parcel. These proposals resulted in a development program of 1400 units. Only afterwards did the acreage deficiency come to light. The number of units has since stayed constant, but land available for recreation has diminished. This issue should be clarified and justified, in the context of c.91.

8

8. The current plan represents a tension between building footprints, parking area and parkland. Graphics in the Final EIR should identify all parking for the project: on-street, in surface lots and in structures. While I think 1245 spaces is probably a justifiable number for 1400 units I am concerned at the suggestion that further expansion might be required. Where would this occur? Because the site is well-served by mass transit, the possibility of remote parking should be explored and discussed thoroughly.

9

9. Discussion and graphics should show how the waterfront treatment fits in with the regional context, from South Boston down around past the University. The current and proposed status of public access at Bayside Expo Center must be identified. (see scope for EOEA #4520 and 5/31/83 letter from MEPA to R. Mertens, BRA).

III MITIGATION

10

The EIR demonstrates throughout a failure to provide effective mitigation. While mitigation is often identified, it is generally postponed. Examples of this pattern are traffic (BRA EIR and improvements to come), pedestrian improvements (planning to come), parkland replacement (perhaps on BSD or BHIC Land), and improvement to the waters edge (in the future, it state funds can be obtained). Water transport is briefly mentioned as desirable, and then the issue is dropped without discussion. The Final EIR should demonstrate commitments to appropriate levels of mitigation, not mitigation to the vagaries of future planning and funding.



11 The failure of the BRA to have submitted its EIR for the Columbia Point Roadway Improvements (EOEA #4520) is unfortunate. In scoping this Columbia Point EIR, it was my clear understanding that the BRA EIR would have completed review prior to submission of the Columbia Point EIR. The Final EIR for the Columbia Point project must summarize the options and plans for the BRA project, and show how they will accommodate traffic from this development. An accelerated filing of the BRA EIR would be greatly desirable.

IV OTHER

12 The scope for this report asked for results of testing for hazardous materials and for gas generation and for monitoring and control systems for handling any such problems. The issue of hazardous waste has been dealt with in a general way. However, gas issues were not reported in the DEIR. The Final EIR should address the gas issue and clearly define control measures for both gas and hazardous materials.

All comments on the Draft EIR must be reprinted and responded to in the Final EIR.

JSH/RNF/bk



The Commonwealth of Massachusetts

Executive Office of Environmental Affairs

Department of Environmental Quality Engineering

Division of Wetlands and Waterways Regulation

One Winter Street, Boston 02108

S. Russell Sylva
Commissioner

FEB 15 1985

MEMORANDUM

TO: Dick Foster, Associate Environmentalist, M.E.P.A. Unit

FROM: John Zajac, Chief Engineer, D.E.Q.E. *JZ*
Division of Wetlands & Waterways Regulation

DATE: February 12, 1985

SUBJECT: Comments on "Harbor Point", Boston; E.O.E.A. #5076

The Division has reviewed the above-subject Draft Impact Report and offers the following comments pursuant to Chapter 91 of the Massachusetts General Laws:

3 1. The Division has determined that this project proposal is in and over tidelands and is therefore subject to regulatory review pursuant to G.L. Chapter 91 and 310 CMR09. Since nonwater dependent uses of tidelands is proposed, Section 18 of G.L. Chapter 91 provides that the Department must determine before a Ch. 91 License can be issued that the project proposal: 1) serves a proper public purpose, 2) provides a greater public benefit than detriment to the public's rights in tidelands, and 3) is consistent with the policies of the Office of Coastal Zone Management. Since it is the responsibility of the proponent to provide a detailed analysis of how this project proposal satisfies these statutory requirements, it would therefore seem appropriate in this case for the proponent to provide this analysis through the Final Impact Report and the M.E.P.A. review process.

13 2. Based upon the review of the project plans as well as existing Waterways Licenses issued at this location, there is speculation as to the position of the primitive high water line and the related primitive extreme low water line. These lines of demarcation would indicate the extent of fill on private tidelands and commonwealth tidelands which directly relates to the public's interest in this proposal. These primitive boundaries should be verified through the Final E.I.R. process.

We thank you for the opportunity to comment and would appreciate your notification of any future meetings or discussions on this proposal. Should you have any questions or comments, please feel free to contact me at 292-5686.

cc: Meriel Hardin, Acting Director, DWWR
Carl Dierker, D.E.Q.E. General Counsel
Gary Clayton, Deputy Director, Coastal Zone Management

JZ/mes



COASTAL ZONE
MANAGEMENT

The Commonwealth of Massachusetts

Executive Office of Environmental Affairs

100 Cambridge Street

Boston, Massachusetts 02202

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FEB 20 1985

MEMORANDUM

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

TO: SAM MYGATT, DIRECTOR, MEPA
FROM: RICHARD F. DELANEY, DIRECTOR, MCZM
DATE: FEBRUARY 15, 1985
RE: HARBOR POINT COLUMBIA POINT HOUSING
REDEVELOPMENT PROJECT, DEIR, EOE #5076

The Massachusetts Coastal Zone Management (MCZM) Office has reviewed the Draft Environmental Impact Report (DEIR) for the Columbia Point Housing Redevelopment Project (Harbor Point) and offers the following comments. The Final Environmental Impact Statement (FEIS) for this project should include information clearly stating the potential impacts to the coastal zone (MCZM Policies 13, 18, 21, 14, and 27) as they relate to the development format chosen and the alternatives, if any for the following issues:

1. The Office notes that this project proposal is in and over tidelands and is therefore subject to regulatory review pursuant to G.L. Chapter 91 and 310 CMR09. Since nonwater dependent uses of tidelands is proposed, Section 18 of G.L. Chapter 91 provides that the Department must determine before a Ch. 91 License can be issued that the project proposal: 1) serves a proper public purpose, 2) provides a greater public benefit than detriment to the public's rights in tidelands, and 3) is consistent with the policies of the Office of Coastal Zone Management. Since it is the responsibility of the proponent to provide a detailed analysis of how this project proposal satisfies these statutory requirements, it would therefore seem appropriate in this case for the proponent to provide this analysis through the Final Impact Report and the M.E.P.A. review process.
2. Based upon the review of the project plans as well as existing Waterways Licenses issued at this location, there is speculation as to the position of the primitive high water line and the related primitive extreme low water line. These lines of demarcation would indicate the extent of fill on private tidelands and commonwealth tidelands which directly relates to the public's interest in this proposal. These primitive boundaries should be verified through the Final E.I.R. process.

3

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3. The height, and location of buildings adjacent to the shoreline imposes serious impacts associated with wind, shadow and visual access to Boston Harbor. Large, tall buildings on the waterfront present imposing physical and visual obstacles and are generally inconsistent with good waterfront planning and design. The FEIR should consider a re-design of these structures to avoid or reduce the adverse impacts associated with their proposed height and location.

3/4/15

4. The project proposal would utilize approximately 10 acres of existing public recreation space at the shoreline and offers, in compensation for this loss of a public resource, a 30 foot wide easement along the shorefront of the project site. The reduction in public open space is not adequately compensated for by the proposed easement. Amenities other than the easement itself should be identified. The FEIR must address this issue further with respect to compensation particularly in light of the statutory requirements of Ch. 91. For example, the proposed use of the area does not identify how former users of the active recreation areas and the recreation facilities, will be compensated. If access through the development is to be denied as proposed in the present redevelopment scheme, how will public transportation users reach the open space that is to be made available? Will there be access for groups from all economic income levels and all communities to and through the sites? The issue of management and security of open and public space is also critical. The other question which must be addressed is what public interest will exist in the development when the transfer of assets completed. Finally, how will the proposed change in use be consistent with the Dorchester waterfront plan and the Boston Harborpark Plan.

16

17

5. The FEIR must also address the reconstruction of the existing waterfront rip-rap revetment and walkway. The present serious state of disrepair of this structure precludes any active public or resident use of this area. The relationship of this walkway and structure to possible marina and/or commuter dock facilities, and other long range waterfront development issues should also be addressed.

Boston Redevelopment Authority

February 6, 1985

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FEB 7 1985

Stephen F. Coyle/Director

Secretary James S. Hoyte
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

ATTENTION: MEPA UNIT

Dear Secretary Hoyte:

Re: EOEA #5076 - Harbor Point Draft Environmental Impact Report

Pursuant to regulations implementing M.G.L., Chapter 30, Sections 62-62H, the Boston Redevelopment Authority has reviewed the above-referenced Environmental Impact Report and submits the following comments.

In general, we feel that the DEIR submitted for the Harbor Point project describes in a very comprehensive manner the potential environmental effects of the redevelopment of the Columbia Point Housing Project site and that implementation of this project will result in substantial benefits to the Columbia Point neighborhood and to the City of Boston. There are a few details in the report, however, which we believe need further clarification or correction, as further detailed below.

General

- 18 1. The site plan included on the Draft EIR is not the most recent design for the project. Changes have been made and current plans provide for a wider open area along the waterfront and the mid-rise buildings have been pulled back further from the shoreline, thus making for a better project. The Final EIR should include the current project site plan, and the analysis should be revised as appropriate to reflect this plan.
- 12 2. There is no discussion of the methane gas situation, which potentially could be a problem. It has been a problem in the past (but not recently). Nonetheless, the EIR should discuss the current situation, the possibility of its presence, and mitigation measures should methane be present on this site.
- 19 3. The traffic analysis appears to assume a 1987 completion of the project. In actuality, the project will not be completed until 1989 (construction start in mid-1985, four year construction period). Therefore, the analysis needs to be updated. This same comment applies to the air quality analysis as well, since it is based on the traffic numbers and assumes a 1987 completion of the project. This analysis, likewise, needs to be corrected.

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Boston, Massachusetts 02201
(617) 722-4300

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Specific

- 4/15 p.III-24 The width of the easement to the City along the waterfront for public access should be corrected to 50 feet. At three places, this easement will be wider than 50 feet.
- 17 The Final EIR should indicate the amount of repair work necessary in order to restore and stabilize the shoreline, the schedule for this work, and the maintenance requirements in order for the shoreline to remain stable.
- 20 p.III-27 The construction period of 14-16 months seems rather ambitious for the first phase area. Is the stepped mid-rise the first building to be completed (within 16 months)?
- 21 p.IV-4 Appendix E does not indicate anything about a "Public Benefit Fund".
- 22 p.V-27 Since the soil borings did not extend to refusal, it is incorrect to state that the "glacial till" stratum ranges only up to 7 feet in thickness. Other reports (cited on pg. V-26) would indicate a thickness from 150 to 200 feet. Also, this stratum is not properly identified; it should be "marine deposits" rather than "glacial till".
- 18 p.V-29 The new townhouse which lies within Zone B lies to the southwest of the mid-rise/tower building (not immediately to the east).
- 23 p.V-43 The noise level evaluation given in Appendix O shows the existing range to be from 57.3 dB (not 55) to 59.5 dB.
- 24 p.VI-62 A discussion of solar energy possibilities could be included in the energy discussion, since the possibilities for the use of passive solar to reduce heating loads could be extensive with a total redevelopment of the site.
- 30 The BRA and the BHA have commissioned a study of district heating options for the project. This study should be included as an appendix in the Final EIR and a summary of the conclusion of the study should be included in the body of the Final EIR.
- 25 p.VI-74 The Final EIR should indicate which design elements in the site plan will decrease the potential problems of wind channeling.
- 26 p.VI-84 It should be noted that there will be two (not one) vehicular entries to the site.
- 27 p.VI-86 According to Figure VI-10 two buildings (20 and 26(?)) scheduled for demolition are currently occupied. Thus the statement that all buildings scheduled for demolition are unoccupied is incorrect.
- 28 p.VI-92 What is a "full 21E-type investigation? Explain.



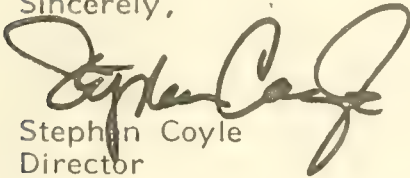
Appendices

A. Bibliography

29 Since this reportedly represents a compilation of studies done on Columbia Point, it should be updated to 1985, as there are no studies listed beyond 1980.

We trust that these comments will be helpful in the preparation of a satisfactory Final EIR and look forward to an early implementation of this most important project.

Sincerely,



Stephen Coyle
Director

cc: Marty Jones, CMJ, Inc.

Boston Redevelopment Authority

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FEB 1985

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

February 5, 1985

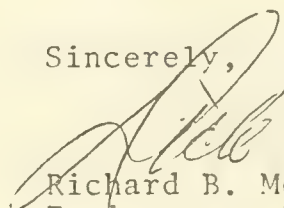
Richard Foster
Executive Office of Environmental Affairs
MEPA Unit
100 Cambridge Street
Boston, MA 02202

Re: EOE 5076 - Harbor Point

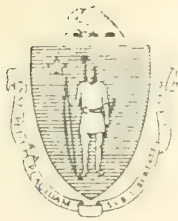
Dear Dick:

I just received the enclosed letter today from Boston College High School commenting on the Draft EIR for Harbor Point. It does not appear that a copy was sent to MEPA, so I am forwarding a copy to you with the request that it be included among the comment letters for this project.

Sincerely,



Richard B. Mertens
Environmental Review Officer



The Commonwealth of Massachusetts
Executive Office of Energy Resources
100 Cambridge Street, Room 1500
Boston, Massachusetts 02202

MICHAEL S. DUKAKIS
GOVERNOR

SHARON M. POLLARD
SECRETARY

(617) 727-4732

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FEB 7 1984

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

February 4, 1984

Secretary James S. Hoyte
Executive Office of Environmental Affairs
100 Cambridge St.
Boston, Massachusetts 02202

Attn: MEPA Unit

dear Secretary Hoyte:

I have reviewed the Draft Environmental Impact Report for Harbor Point, for the Executive Office of Energy Resources.

My review is limited to Part VI, Section J. "Energy Resources", and the associated Appendices. I have limited comment to a summary of MEOER design review activities to date, under the terms of our MOU with Massachusetts Housing Finance Agency (attached), and an outline of the scope of recommendations expected to be ready for submittal for the final Environmental Impact Report.

MEOER activities to date (during preliminary architectural design) have included: participation in planning meetings to ensure that energy issues were part of their agenda, review of the first progress prints for the Redevelopment, and preliminary analysis of energy end-uses. In addition, MEOER staff have provided intensive, ongoing review and comment on the district heating study for the BRA/BHA consultants.

Current activities (during architectural design development) focus on updating the energy end-use analysis, and developing specific recommendations. Those recommendations will address: selection of heating, ventilating, and air-conditioning equipment, fenestration and window specifications, levels of insulation, and landscaping.

The design development recommendations, and an outline of the scope of further analysis for working drawings and construction, should be completed in time for inclusion in the final Environmental Impact Report.

Very truly yours,

Eric C. Noble

Eric C. Noble
Passive Solar Programs Manager

encl.

MEMORANDUM OF UNDERSTANDING

ON

PROVIDING TECHNICAL REVIEW FOR THE COLUMBIA POINT REDEVELOPMENT

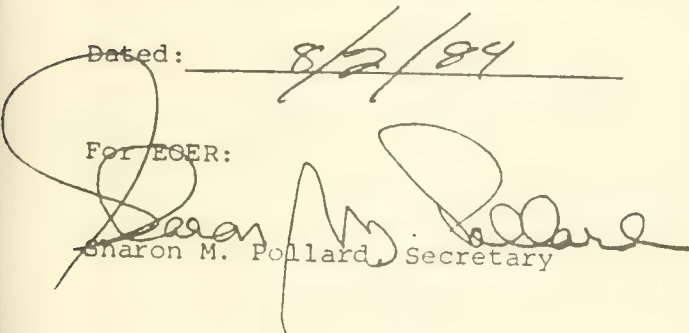
The Executive Office of Energy Resources (EOER) and the Massachusetts Housing Finance Agency (MHFA) share a strong interest in ensuring that the Columbia Point Redevelopment incorporates all feasible and cost-effective measures to reduce future energy consumption. To that end, EOER will provide MHFA with technical review of progress prints for Columbia Point, and MHFA will make every effort to ensure that acceptable EOER recommendations are incorporated in the Redevelopment.

EOER and MHFA will coordinate their technical review as follows: 1) MHFA's technical review team will provide EOER staff with all required submittals of progress prints and specifications; 2) EOER staff will review those submittals in a timely manner and recommend modifications or directions which might improve the energy-efficiency of the completed project; 3) MHFA staff will review those recommendations, discuss them as necessary with EOER staff and members of the development team, and, if appropriate, transmit approved recommendations to the development team.

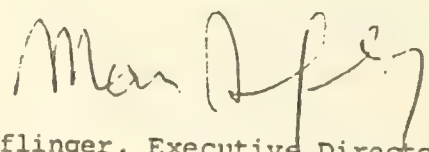
EOER anticipates that technical review and consultation will require approximately 400 hours of EOER staff time, based on experience with similar projects. If MHFA requires additional EOER staff time, MHFA will arrange compensation for EOER, at an agreed-upon rate, for time in excess of 400 hours.

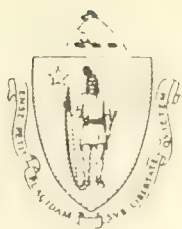
Dated: 8/2/89

For EOER:


Sharon M. Pollard, Secretary

For MHFA:


Marvin Siflinger, Executive Director



S. Russell Sylva
Commissioner
727-5194

The Commonwealth of Massachusetts
Department of Environmental Quality Engineering
Metropolitan Boston - Northeast Region
223 New Boston Street, Woburn, MA 01801

M E M O R A N D U M

TO: Executive Office of Environmental Affairs

ATTN: Dick Foster, MEPA

FROM: *SA* Michael J. Maher, Chief, Air Quality Control Section *White*

DATE: February 7, 1985

SUBJECT: EOE #5076 - Harbor Point, Boston - Review of Draft
Environmental Affairs

The comments submitted by this office for the above referenced project (January 23, 1985), should be corrected as follows:

- 38** 9.) The proponent should explain why the intersection of Morrissey Boulevard/U. Mass Roadway was not included in the air analysis.

MJM:yw

cc: Franklin G. Ching, H.W. Moore Associates

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FEB 11 1985

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS





The Commonwealth of Massachusetts

Department of Environmental Quality Engineering

Metropolitan Boston - Northeast Region

323 New Boston Street, Woburn, MA 01801

S. Russell Sylva
Commissioner
727-5194

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JAN 23 1985

MEMORANDUM

TO: Executive Office of Environmental Affairs

ATTN: Dick Foster, MEPA

FROM: *for* Michael J. Maher, Chief, Air Quality Control Section *for*

DATE: January 23, 1985

SUBJECT: EOE #5076 - Harbor Point, Boston - Review of Draft Environmental Impact Report.

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

The Department of Environmental Quality Engineering has reviewed the Draft Environmental Impact Report (DEIR) submitted for the above referenced project. Based upon this review, conducted by staff from the Division of Air Quality Control, we wish to offer the following comments:

- 31 1) The inputs to Mobile 3 for one hour condition had the wrong not/cold start percentages. The correct values are 50/10/50 rather than the 50/40/10 split found in this Draft.
- 32 2) Was the Wind Rose in Figure V-10 used in the Worksheet 5 dispersion calculations, or were wind road angles calculated for each intersection?
- 33 3) According to Section VI, the DEIR assumes an annual traffic growth rate of 0.5% per year. This rate seems quite low when compared with MDPW figures used elsewhere in the Metropolitan area, particularly considering the use of Morrissey Boulevard as an alternate route to Downtown Boston. Therefore, background traffic growth should be reflective of growth along the Southeast Expressway in addition to traffic generated locally, including UMASS and the Bayside Exposition Center.
- 34 4) The table on page VI-23 showing trip distribution by facility indicates that 5% of the traffic uses the Columbia Road Ramp. Is this the on or off ramps and in which direction? This should be clarified since 47% of all trips use the Expressway Northbound.

35

- 5) Were the AWDT's developed from 24-hour counts or peak period turning counts only? This is important in determining the use of 8-hour traffic data for the CO analysis as opposed to using persistence factor. In addition, if the counts were not taken in 1984 then what growth rate was used?

36

- 6) The A.M. peak traffic data should have been included in order to demonstrate the BRA's claim that the P.M. peak is greater.

10

- 7) According to the traffic analysis it appears that the BRA has assumed the implementation of certain roadway improvements in calculating 1987 and 2000 conditions. Have commitments to implement been made by all appropriate agencies (City, MDC, MDPW)? If not, then these improvements should not be included as the build-case, but rather, as alternative mitigation measures.

37

- 8) Did the air quality analysis include all improvements called for in the BRA analysis? If not, it should be stated. If they did, then comment #7 applies here also.

38

- 9) The proponent should explain why the intersection of Morrissey Boulevard/Freeport Street was not included in the air analysis.

3

- 10) Should these, or any other comments, result in changes to the traffic analysis, the proponent must incorporate those changes into the air quality analysis for the Final EIR.

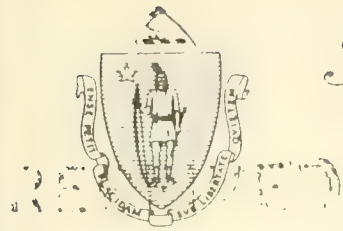
39

- 11) Appendices M and N discuss the energy needs for this proposal including construction of a cogeneration unit. These plans should be discussed with Mr. Parks of my staff in order to determine if DEQE Regulation 310 CMR 7.02 is applicable. If they are, then all plans must be approved by the Department prior to construction.

Please contact Barry Porter of the Division of Air Quality Control if you have any questions regarding Items 1-10.

MJM/BSP/ch

cc: Richard Mertens, Boston Redevelopment Authority
Franklin G. Ching, Ph.D., H.W. Moore Associates
Tom Parks, DEQE-MB/NE



The Commonwealth of Massachusetts

University of Massachusetts - Boston

Harbor Campus

Boston, Massachusetts 02125 **RECEIVED**

February 5, 1985

FEB 6 1985

Mr. James S. Hoyte, Secretary
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

**OFFICE OF THE SECRETARY
OF ENVIRONMENTAL AFFAIRS**

Dear Secretary Hoyte:


I am writing on behalf of the University to comment on the draft Environmental Impact Study EOE #5076 pertaining to the Harbor Point development.

While we look forward with enthusiasm to the redevelopment of the Peninsula according to the draft plans submitted, we would like to reiterate our position on the roadway schemes. On page VI-27 there is a reference to a requirement for a separate Environmental Impact Report from the Redevelopment Authority dealing with proposed roadway improvements. We hope that this report will reflect the position stated on a number of occasions by the University.

The proposed roadway scheme includes a connection from the University Perimeter Road to Mt. Vernon Street. It also proposed the change from the one-way circulation plan currently used, to a two-way circulation path on our West Perimeter Road with possible later extension to the connection with the J.F.K. Presidential Library. We have agreed to the connection to Mt. Vernon Street but feel the provisions for two-way traffic circulation will introduce unnecessary traffic hazards, delays, and traffic signaling requirements. We understand that the position is shared by all other major participants in the project. We would therefore reiterate our objection to this aspect of the plan.

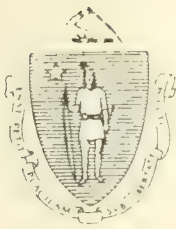
Please contact me directly at 929-7020 for further information requirements.

Sincerely,


Forrest J. Speck
Director-Auxiliary Services

cc: Chancellor Robert A. Corrigan
Mr. Richard Martens - Boston Redevelopment Authority





The Commonwealth of Massachusetts
Executive Office of Energy Resources
100 Cambridge Street, Room 1500
Boston, Massachusetts 02202

MICHAEL S. DUKAKIS
GOVERNOR

SHARON M. POLLARD
SECRETARY

RECEIVED (617) 727-4732

FEB 15 1985

February 15, 1985

Secretary James S. Hoyte
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts, 02202

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

Attn: MEPA Unit

Dear Secretary Hoyte:

Thank you for the opportunity to comment on the Draft Environmental Impact Report for Harbor Point. The Executive Office of Energy Resources will make recommendations to the Massachusetts Housing Finance Agency, and the other public agencies, through design review, with the goal of reducing the long-term impacts of energy use at the Harbor Point development.

The results of our review to date (e.g. energy-use impacts of the site plan) has been largely favorable; however, many decisions with important energy-use implications will be made during Design Development and Working Drawings. The public agencies responsible for design review must be provided with thorough and timely analyses of the energy-use implications of those decisions.

The Executive Office of Energy Resources recommends that the Harbor Point EIR document timely completion of the following technical and economic analysis:

45 1.) Detailed review of the basis of design for heating, ventilation, and air conditioning (including air quality and temperature requirements) must be performed before further analysis of mechanical equipment or conservation options. This is a crucial, first step because assumptions about ventilation and temperature requirements are necessary inputs to the following analyses.

30 2.) The final report of the BRA/BHA-funded study of district heating is expected to recommend additional study of a district heating system which could substantially reduce the development's future energy consumption. Recommended engineering analysis should be completed during Design Development.

46 3.) Heating, ventilating, and air-conditioning equipment options should be reviewed during Design Development. Options to be analyzed should include ventilation-air heat-recovery equipment, because preliminary estimates of energy end-uses for the development indicate that ventilation requirements could account for more than one third of heating and cooling loads. Options for energy-use monitoring equipment should also be analyzed, because accounting for energy use on an apartment-by-apartment basis can result in substantial reductions in discretionary energy use. The analysis should be refined during Working Drawings.

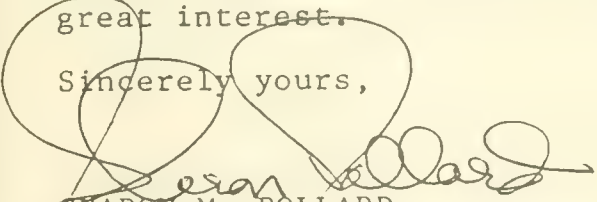
46 4.) Energy-use impacts of the sizing, orientation, and specifications for windows and glazing should be analyzed during Design Development and reviewed during Working Drawings, because energy end-use estimates indicate that windows could account for one-third of heating and cooling loads, and solar gains during the heating season could reduce spaceheating energy use by as much as 40%.

46 5.) Ongoing review of appropriate thermal insulation levels should continue through working drawings, with particular attention to thermal insulation details and air infiltration controls.

The scope of the required analysis should include sensitivity analysis for a range of assumed fuel price escalation and inflation rates. The analysis should also address interdependent effects of energy supply and conservation options.

I will continue to follow the Harbor Point development's progress with great interest.

Sincerely yours,



SHARON M. POLLARD
Secretary of Energy



Metropolitan Area Planning Council

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FEB 16 1985

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

February 15, 1985

The Honorable James S. Hoyte
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

Attention: MEPA Unit

Project Identification:

Project Name: Harbor Point

EOEA#: 5076

Project Proponent: Columbia Point Redevelopment Team MAPC#: DEIR-85-14

Location: Columbia Point, Dorchester

Dear Secretary Hoyte:

In accordance with the provisions of Chapter 30, Section 62 of the Massachusetts General Laws, the Council has reviewed the Draft Environmental Impact Report identified above and offers the following comments:

1. HOUSING ISSUES:

Two housing problems are addressed by the proposed project. One is the severe shortage of affordable rental housing, particularly in family size units. The other is the deteriorated condition and essential failure of the existing Columbia Point housing.

The Harbor Point project provides affordable rental housing for a broad span of ages and family sizes. It also provides a positive residential environment that takes advantage of its dramatic physical setting, rather than being a negative intrusion into it. The project also rehabilitates (and adds to) the most deteriorated public housing area in the city.

It is also important to note that the undertaking is being done with private capital, albeit with some public subsidy. The vision and persistence of the developers in obtaining financing and moving forward must be commended.

In this light, Harbor Point upholds the spirit and intent of regional, as well as state and federal housing policies.

47



2. VISUAL IMPACTS AND OPEN SPACE OPPORTUNITIES:

48 Under the proposed site plan, the treatment of the open space and visual character of the area is well designed and creates both views to the water and provides green spaces throughout the housing community. However, the proposed project appears to turn its back on the waterfront and does not make a strong effort to integrate the public into this important natural amenity. The opportunity of creating a linear waterfront park connected to the JFK Library, U.Mass. Campus and other surrounding uses should be explored in more detail. Development of more open space adjacent to the water should enhance the visual character along the waterfront.

More emphasis should be placed upon providing outdoor recreation along the waterfront, for both public use and use by the residents, and less emphasis on indoor recreation facilities for residential use only.

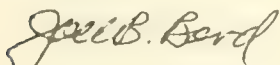
3. SITE IMPACTS:

12 As the Columbia Point Development is located over an abandoned landfill, there are certain concerns regarding the structural stability and the presence of hazardous materials. The DEIR states that the existing soils have a fairly low load-bearing capacity; this may prohibit the construction of the mid-rise units. The final EIR should investigate alternative arrangements, should the soils prove to be incapable of supporting such loads. The DEIR provides information from previous groundwater testing for hazardous materials. The proponent should include a schedule for monitoring of gas and hazardous materials during the construction phase.

17 The site plan indicates several units to be constructed fairly close to the waterfront; given the present deteriorated condition of the rip-rap, erosion could create structural problems for those units. The proponent should include alternatives for building locations or additional erosion control measures.

Thank you for the opportunity to comment on this DEIR.

Sincerely,



Joel B. Bard
Assistant Director/ General Counsel

JBB/LS/WM/djb

cc: Mr. Geoffrey Boehm, MAPC Representative, City of Boston
Ms. Martha Jones, Corcoran, Mullins, Jennison, Inc.

Boston College High School

DORCHESTER, MASSACHUSETTS 02125

Office of the President

January 25, 1985

Mr. Richard Mertens
Boston Redevelopment Authority
One City Hall Plaza
Boston, MA 02201

RE: Harbor Point

Dear Mr. Mertens:

On January 21, 1985 we received a copy of Harbor Point (Redevelopment of the Columbia Point Housing Project) Draft - Environmental Impact Report, EOEA #5076.

A quick review of the report prompts me to make a few observations. Of course we shall study it more closely and be watchful of those facets of this development which will affect Boston College High School. While we enthusiastically welcome the redevelopment of this area we must also be mindful of our own obligations.

Part V - "Existing Environmental Conditions"

Figure V-1 - Parcel Ownership.

41 The property of B. C. High is listed as owned by the Roman Catholic Archbishop of Boston. This is not the case. Boston College High School is the sole owner of said land. The RCAB has never had ownership of this property. Several times I have asked the BRA to correct this and it has not been done. Boston College High School is owned by B. C. High and not the RCAB.

Part VI - "Probable Impact Of The Project And Its Alternatives And Measures To Minimize Environmental Damage."

7 Pg. VI - 10 - Boston Park Department is currently undertaking a review of recreational facilities at Columbia Point with a view to shared use of B. C. High and U Mass facilities.

42 I presume that said study has not commenced as no one at B. C. High has ever heard of it. I presume, also, that this does not imply any eminent domain action and that our needs and use of said facilities would be studied before recommendations are made.



Pg. V1 - 11 - No proposals for future development have been made and that such development would be controlled by U Mass and the Archdiocese of Boston as the two primary land owners.

41 B. C. High's long range physical plant development, first developed in 1950 with the completion of the first building on the campus, revised in 1963 and again in 1980, has included further development of the property. Again any decision to implement these plans and complete the campus would be proposed by B. C. High and not the Archdiocese of Boston.

Pg. V1-51 - Utilities

43 Our main source of electric power comes to the campus from Mt. Vernon St. The electric lines are above ground on our right of way between the Boston School Property and St. Christopher's Church.

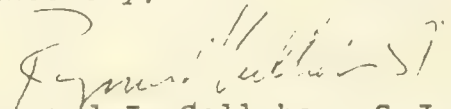
We would be apprehensive of any disruption of this service as everytime there has been some construction along Mt. Vernon St. electric power has been interrupted due to the carelessness of contractors. The most recent outage being in the middle of a school day on January 14, 1985 caused by the contractors putting in the gas line. Such unnecessary outages have caused us many unnecessary expenditures because of damage to computer systems and other such equipment at the school.

Pg. V1 - 57 Pest Control

44 Any disruption in the area causes a problem with rodents. The recent reconstruction of the Southeast Expressway and the construction of the State Archives building created a marked increase in rodents on our property. This caused us increased costs as well as much inconvenience. We would hope that the measures to be taken would minimize the effects of this problem for neighbors.

As I mentioned above these observations come from a quick review of the report. They are concerns which we have at this point and would appreciate their being addressed.

Sincerely,


Raymond J. Callahan, S.J.
President

RJC:km



The Commonwealth of Massachusetts
Metropolitan District Commission
20 Somerset Street, Boston 02108

WILLIAM J. GEARY
COMMISSIONER

February 6, 1985

RECEIVED

James S. Hoyte, Secretary
Executive Office of Environmental Affairs
100 Cambridge St.
Boston, MA. 02108

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

ATTENTION: MEPA Unit

RE: EOEA - 5076
Draft EIR/Harbor Point
(Redevelopment of Columbia Point)

Dear Secretary Hoyte:

The rehabilitation of Columbia Point as a new, mixed income and varied dwelling unit neighborhood is strongly supported by the Metropolitan District Commission. The MDC also strongly supports the concurrent effort by the City of Boston to assure permanent and high quality public access to the uniquely valuable waterfront of Boston Harbor and Dorchester Bay. It is in the context of those two goals that staff has reviewed the Draft EIR for Harbor Point and offers the following comments.

15/
16 1) The proposed waterfront park is inadequate in depth and is dominated by new construction. At present the Columbia Point buildings which are seven stories high are described as forming a "barrier" (pV-49). However, the existing buildings are set well back from the water; two are 200 ft. back and the remainder 300-500 ft from the shore. None exceeds seven stories (pIII-7). The proposed plan has three major highrise buildings of 16 stories within 100 ft. of the shore; one at 200 ft.; a continuous line of lowrises 75 ft. from the shore; a private clubhouse at 100 ft. and two private swimming pools and a basketball court at a 20 ft. setback. In addition, a substantial portion of the remaining waterfront is occupied by two roadways. There is no indication on the plan of the actual public space, or of access to it from the Harbor Point. This diminution of waterfront land appears to run counter to the goals of Harbor park and the Commonwealth's policies for public space in waterfront developments. The 30 ft. which seems to be the proposed width of public space can scarcely accommodate a pathway with emergency vehicle access and some low-salt-tolerant plants.

2) The development site is to be increased in size by some 9.8 ⁺ acres through the transfer of parkland from the City to the developer, legislation enabling the City to act on such a transfer was passed in December 1984. The provisions for the replacement of these public recreation facilities



RE: Draft EIR/Harbor Point

49 are not stated in the EIR. Is other land for public recreation actually available? Will the developer assume the replacement costs or will this be a City cost? The park is the first parcel to be built on by the developer. What is the schedule for park replacement? (pp VI-8-11).

17 3) There is no discussion of shoreline alterations although (p VII-4) the riprap along the waterfront is proposed for reconstruction and fishing facilities and the beach are referenced. The final EIR should address the proposed riprap design and backfilling if any. The reconfiguration of the beach should be described and if a fishing "facility" is to be provided, it too should be described. The proposed park design does not appear to incorporate the beach as a user area or destination point.

14 4) The shadow information is sparse. It would be helpful to provide a full shadow study with illustrations showing summer and winter conditions at various hours of the day. Is the pool in shadow? What is the "middle of the day" (p VI-76) and what is shadow duration on the park?

18 5) The proposed pools seem to be unreasonably close to the shoreline. They are described as being in a "sheltered" location, but they are at least as exposed as the adjacent park which is described as inappropriate for active recreation. If extensive walls or fencing is proposed, what is the effect on the adjacent walkway?

50 6) Dewatering is described. It is not clear if testing has been done to assure that whater is not contaminated. The disposal of this water should be explicitly described. (pVI-54)

51 7) The description of water supply is generally adequate but is inaccurate in its description of the MDC's Long Range Water Supply alternatives. If clarification is desired, please contact MDC Water Division, Ms. Patricia Corcoran, 7-8920.

52 8) In the description of water quality (pV-29) it is important to note that an alternate location for improved CSO treatment facilities is on the property owned by the Boston Water and Sewer Commission.

9) The presentation would have been easier to follow if the plan had shown the number of stories in each building.

53 10) The amount of paved area appears to be high, if not excessive. Given the adverse conditions for tree growth due to poor soils, salt environment and high winds, the added reflective heat of extensive pavement means that the generous number of trees shown on the plan will grow slowly and will not tend to achieve full height or spread indicated by the drawings. Can any modifications be made to provide more structured parking space and/or more berming, planting or reconfiguration of the parking to minimize paved surface? Are all the roadways necessary?

18 11) The Town Green concept is a pleasant one. Is it possible to relocate the tennis courts so that 1/3rd of the Green is not lost to pavement, fencing and wind curtains? Could the tennis courts be part of the replacement recreation on

February 6, 1985

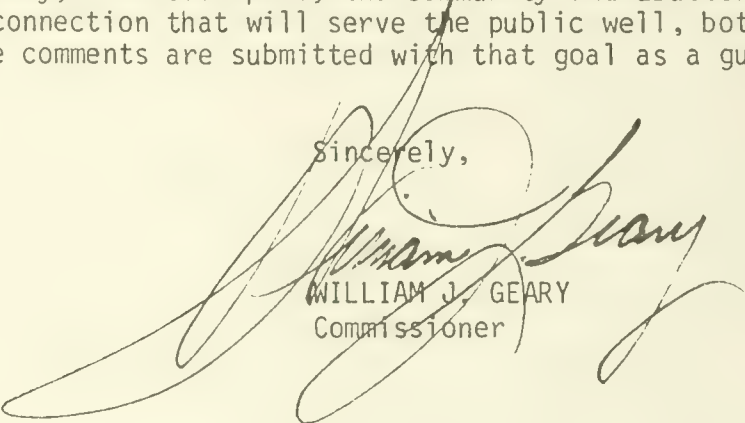
RE: Draft EIR/Harbor Point

the new park site?

54 12) The narrowing of Mt. Vernon Street appears to be desirable. The MDC has been working with the BRA on the reconfiguration of the Mt. Vernon St., Day Boulevard and Old Colony Avenue intersections.

The MDC hopes to continue to work closely with the City of Boston, the Boston Redevelopment Authority, the developers, the community and abutters to achieve a waterfront park connection that will serve the public well, both now and in the future. These comments are submitted with that goal as a guide.

Sincerely,



WILLIAM J. GEARY
Commissioner

WJG:JBOB:m1

PART IX

RESPONSES TO THE COMMENTS

RESPONSES

1. This has been addressed in the Project Description Section in Part III Section D.
2. Graphic presentation in this FEIR has been improved. Please see Parts III, V and VI.
3. Part VI Section E.4. assesses issues raised by Chapter 91.
4. Part VI Section B.2. discusses the intentions of the project in regard to the waterfront park issues.
5. The roads along the waterfront are discussed in Part III Section D and Part VI Section B.
6. The discussion of Chapter 91 Licensing has been re-written for the Final EIR in Part VI Section E.4.
7. The replacement of the lost parkland issue has been discussed in depth with all reviewing agencies and appears in the final EIR Part VI Section B.
8. The possibility of expansion of parking facilities is discussed in Part III Section D.5. Discussion of remote parking is covered in the BRA traffic study which is part of this EIR.
9. Discussion of how the waterfront treatment fits in with the regional context is found in Part V Section B. Graphics depicting how this treatment fits in with the regional context will be forthcoming once available.
10. The Final EIR does demonstrate commitments to appropriate levels of mitigation.
11. The "Columbia Point Peninsula Program- Impact Assessment of Proposed Street Improvements" prepared by the Boston Redevelopment Authority in September 1985 served as the basis for this FEIR. A copy of the report appears in Appendix. However, it must be remembered that the BRA project is an independent project and therefore the developers of Harbor Point have no impact upon the Authority: schedule for submission of an EIR on their own project. By the same token, however, we are responsible to use the results and recommendations of the BRA's approvals, and assure that they will secure implementation.
12. The FEIR addresses the gas issue and clearly defines control measures for both gas and hazardous materials.
13. The punitive extreme low water and high water lines are demarcated on Figure III-7 in Part III of FEIR.

14. The wind, shadow and visual impact of the buildings located adjacent to the waterfront are discussed in the FEIR.
15. The waterfront park issue of amenities, public interest, compensation are addressed in report.
16. According the a letter from BRA Director Coyle to John Zajac, Chief Engineer, DEQE/DWWR, the BRA has found this project consistent with the goals and objective of Harbor Park (see Section VI.A.5.C).
17. The reconstruction of the existing waterfront rip-rap is addressed in the FEIR.
18. The site plan included in FEIR is the most recent design for the project.
19. Traffic analysis has been updated by the BRA. The air quality analysis has also been updated for the FEIR.
20. Construction schedule is explained in Part VI Section M.
21. The Memorandum of Understanding does indicate the Public Benefit Fund.
22. Please see result of new soil testings in Part VI and Appendix F.
23. No comment necessary.
24. The feasibility of having a project of this size dependent on solar power would be beyond the available funding sources.
25. Design elements in site plan that will decrease the potential problems of wind channeling are listed in FEIR.
26. Please see BRA's traffic analysis on noting two vehicular entries to the Harbor Point site.
27. Statement concerning demolition has been changed.
28. A full 21E type investigation for hazardous waste is an investigation in accordance with Massachusetts DEQE regulations.
29. Noted that compilation of studies done on Columbia Point have added updates.
30. Actual final construction drawings cannot be included until review by all involved parties.
31. The inputs to Mobile 3 for one hour condition hot/cold start percentages has been corrected.
32. Wind/road angles for Worksheet 5 were determined based upon worst case conditions as determined by receptor location at each intersection.
- 33.-36. Please see new traffic analysis prepared by BRA.



37. Yes
38. A review of this intersection determined that the location of the queues were beyond any receptor location. Therefore, an analysis would not measure relevant impacts. The location selected did, however, have receptors located close to the queues.
39. No comment necessary.
40. Please see the traffic analysis in Part VI.
- 41.-44. Comments have been noted and addressed in FEIR.
- 45.-46. Final construction plans will further analyze the HVAC options available for this project.
47. No comment required.
- 48.-49. Please see Parts III, V and VI for detailed discussion of the proposed waterfront park.
50. Testing will be conducted as necessary. All contaminated water will be properly disposed of according to state regulations.
51. No comment required.
52. So noted.
53. Please see Part III for a detailed description of the new site plan.
54. No comment required.





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